

FIG. 1

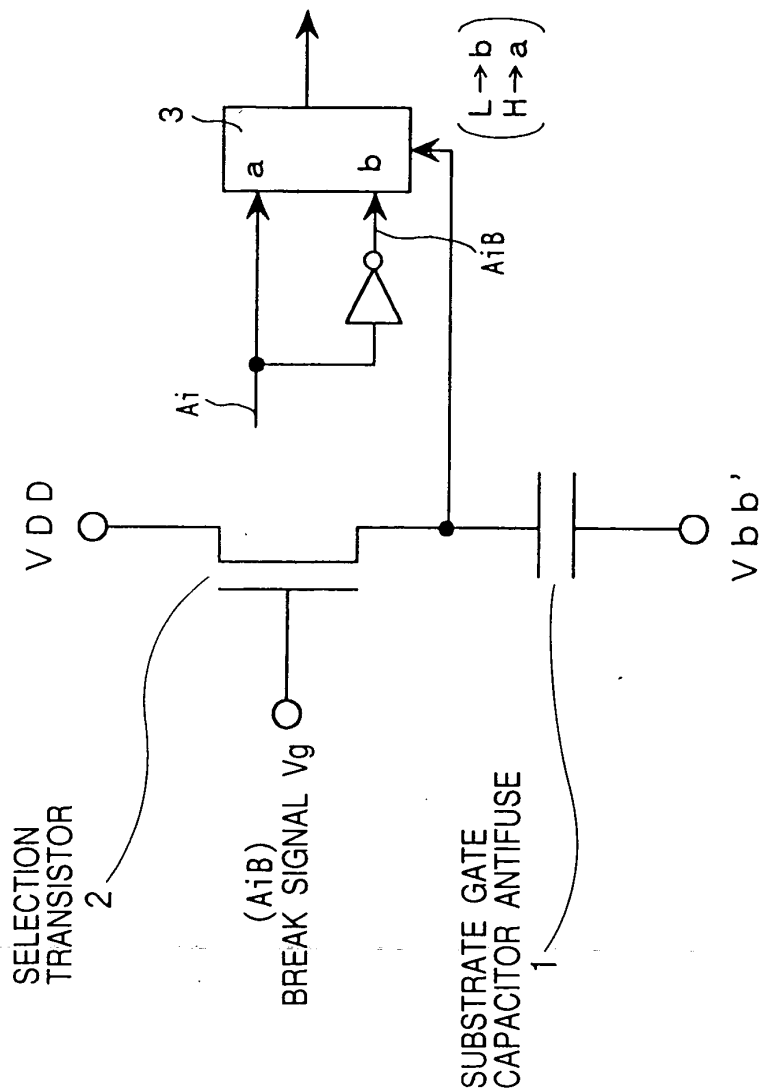


FIG. 2

FIG. 2

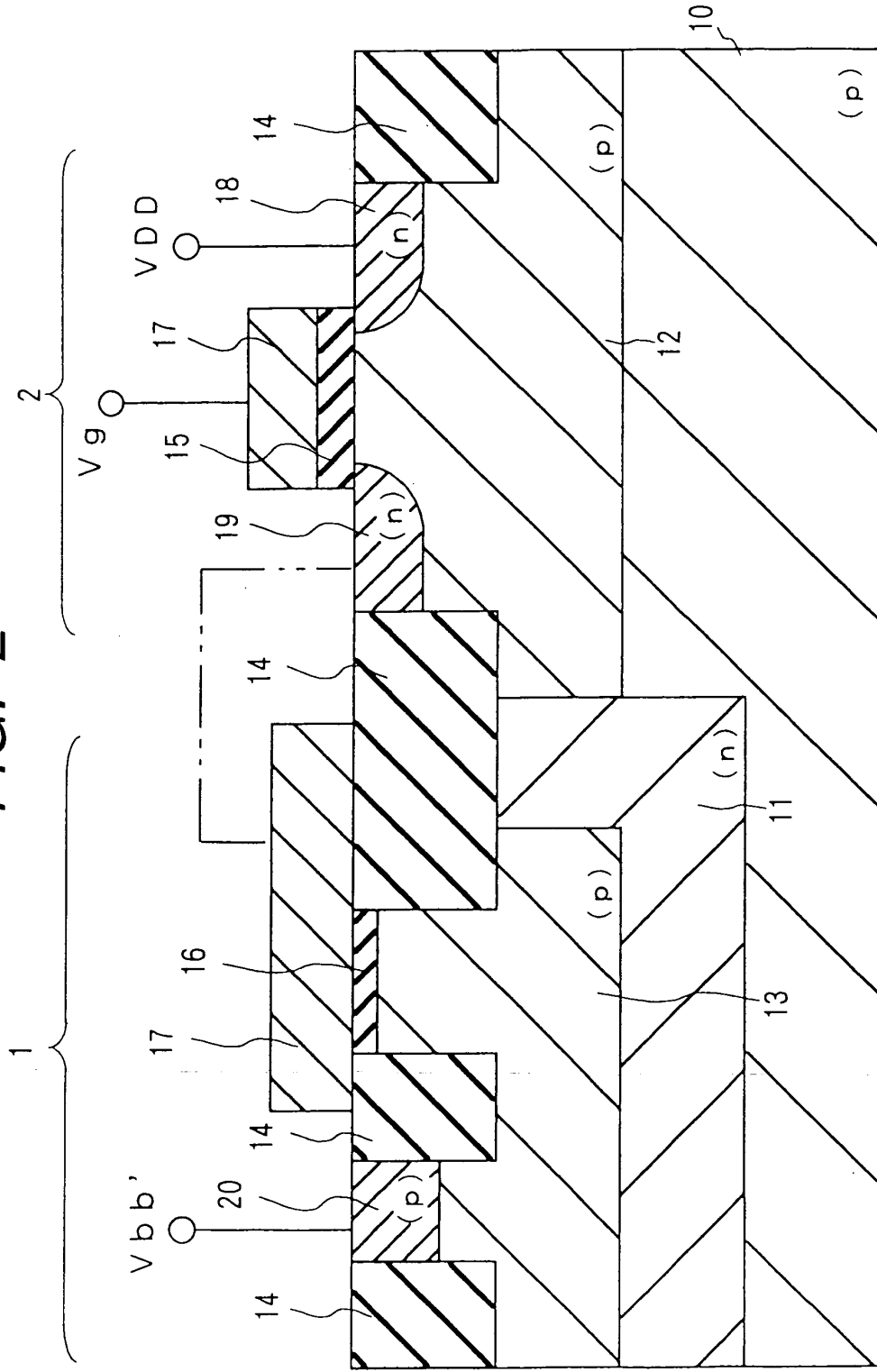


FIG. 3

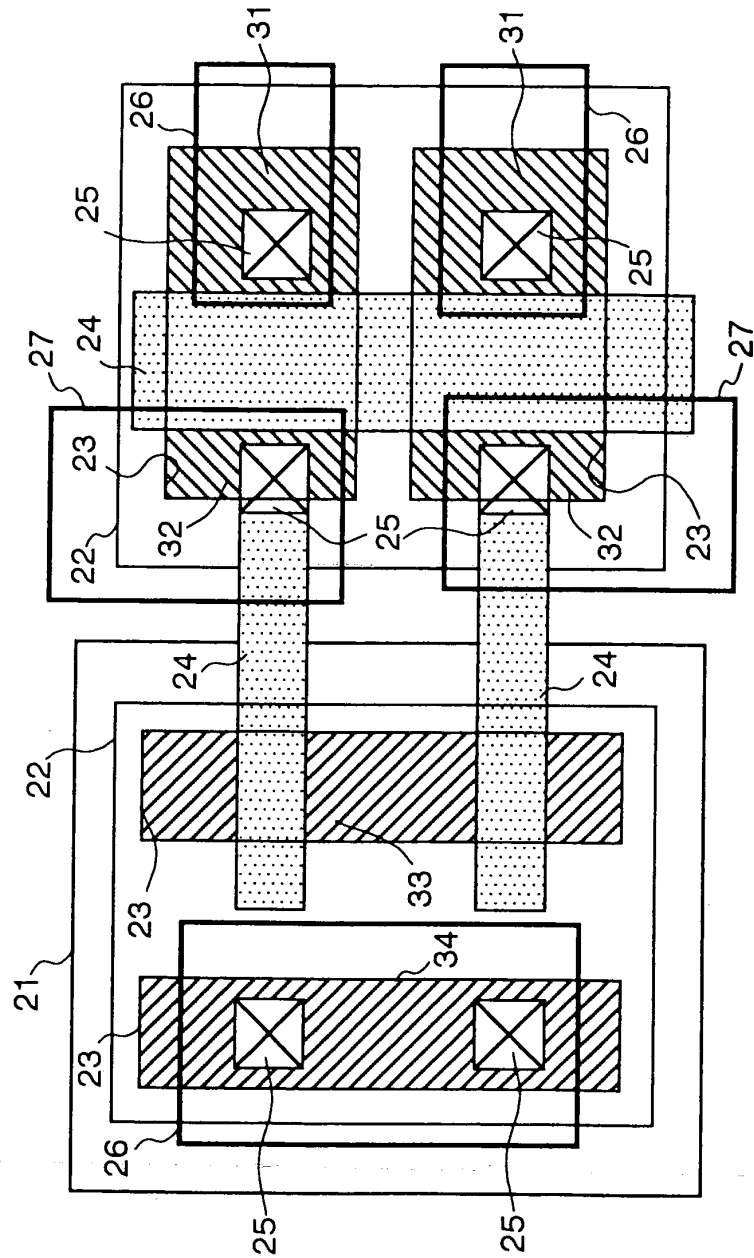


FIG. 4

FIG. 4

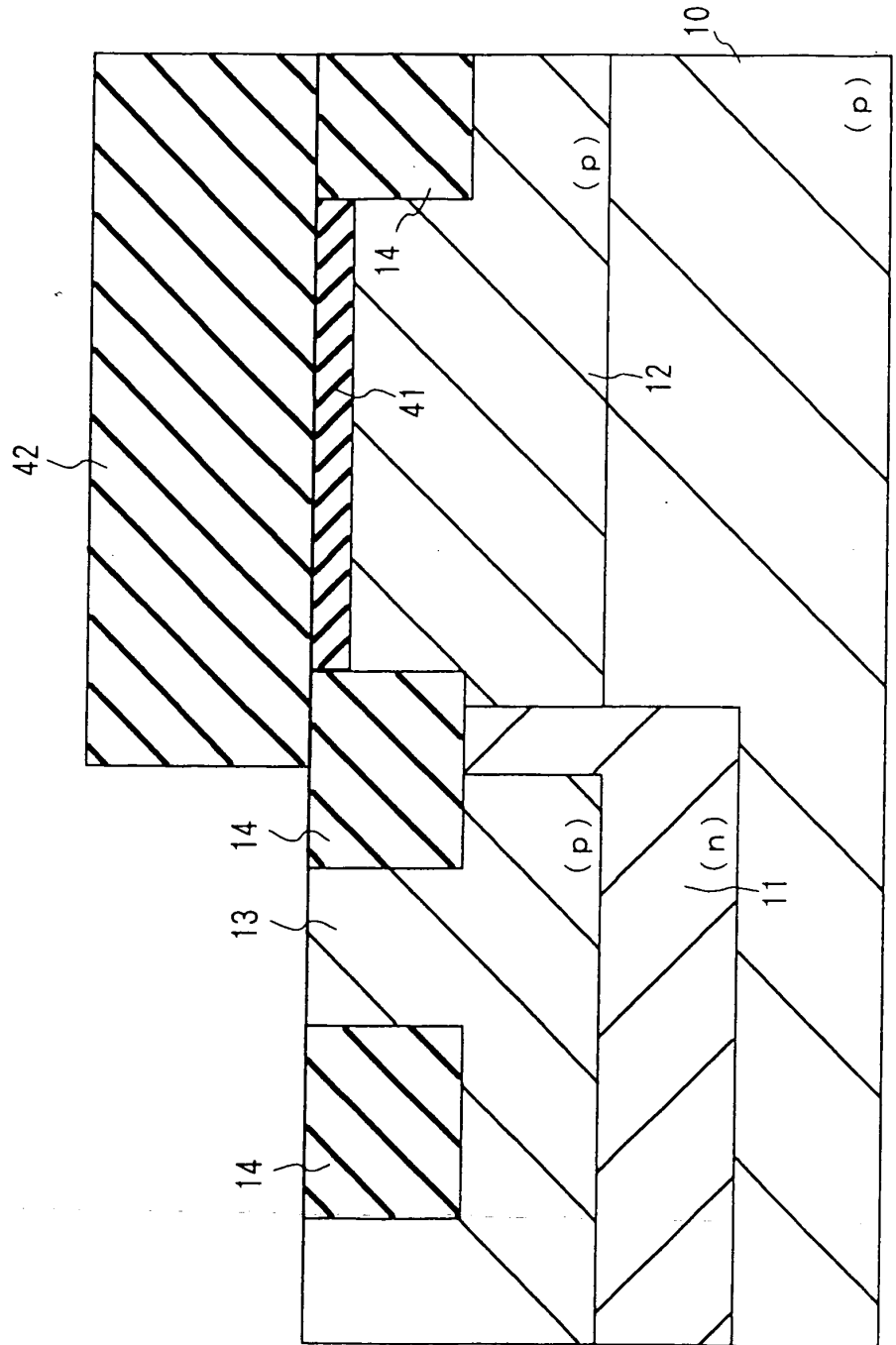
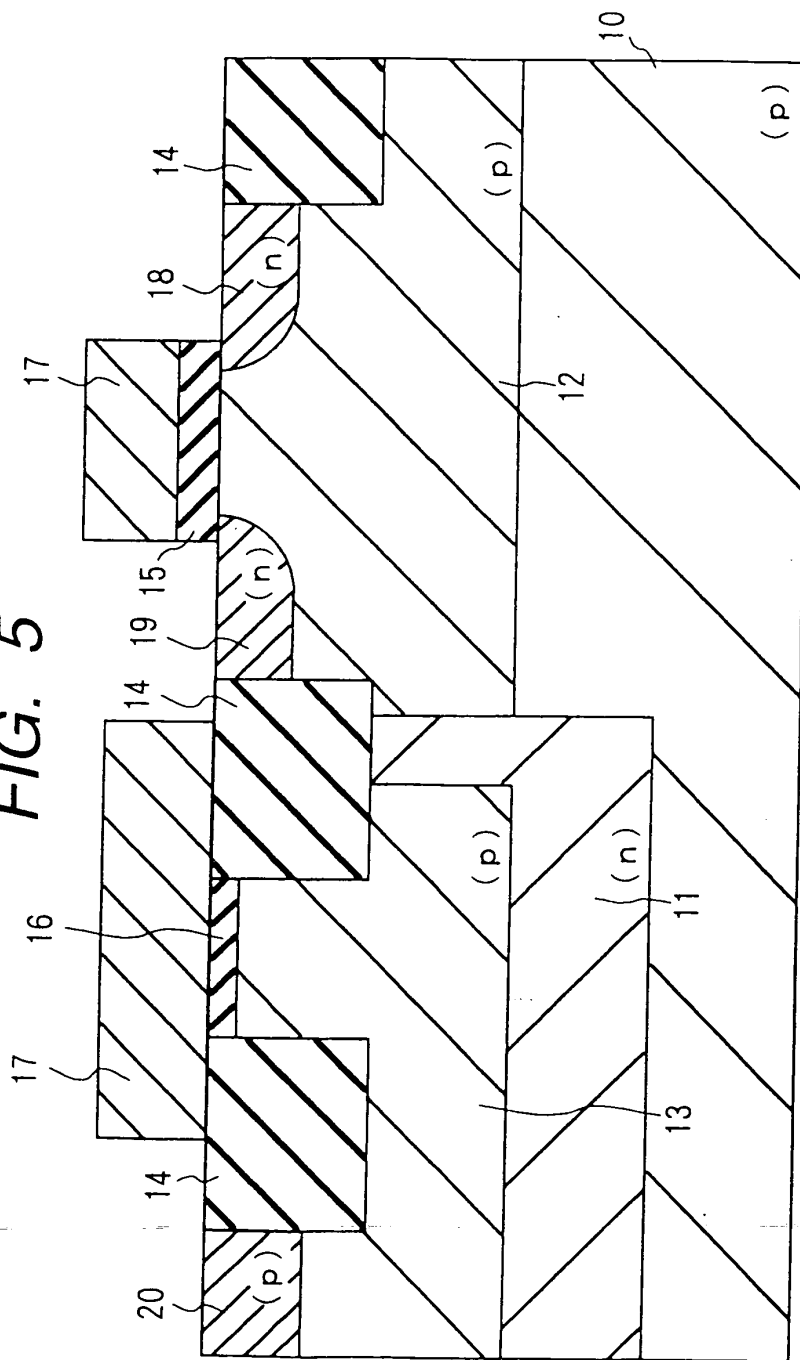


FIG. 5



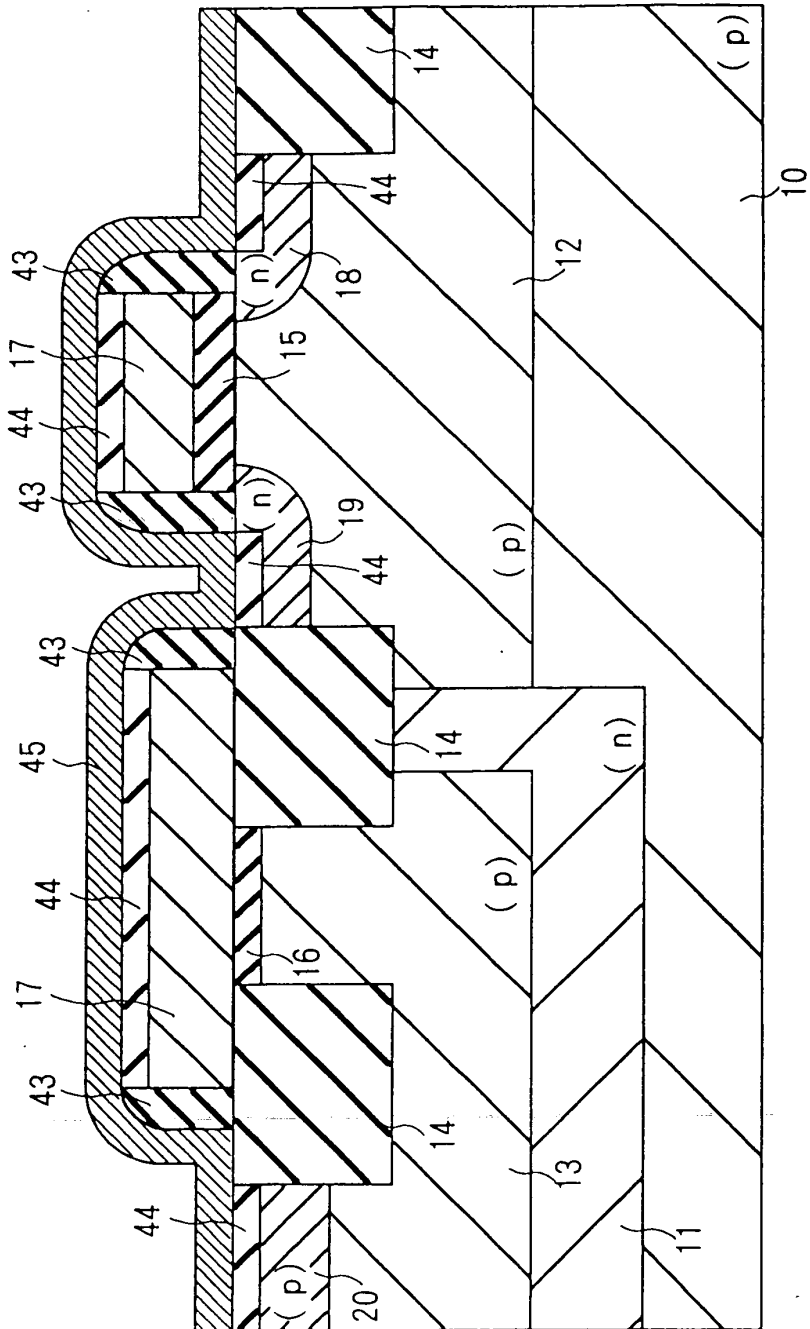


FIG. 6

FIG. 7

FIG. 7

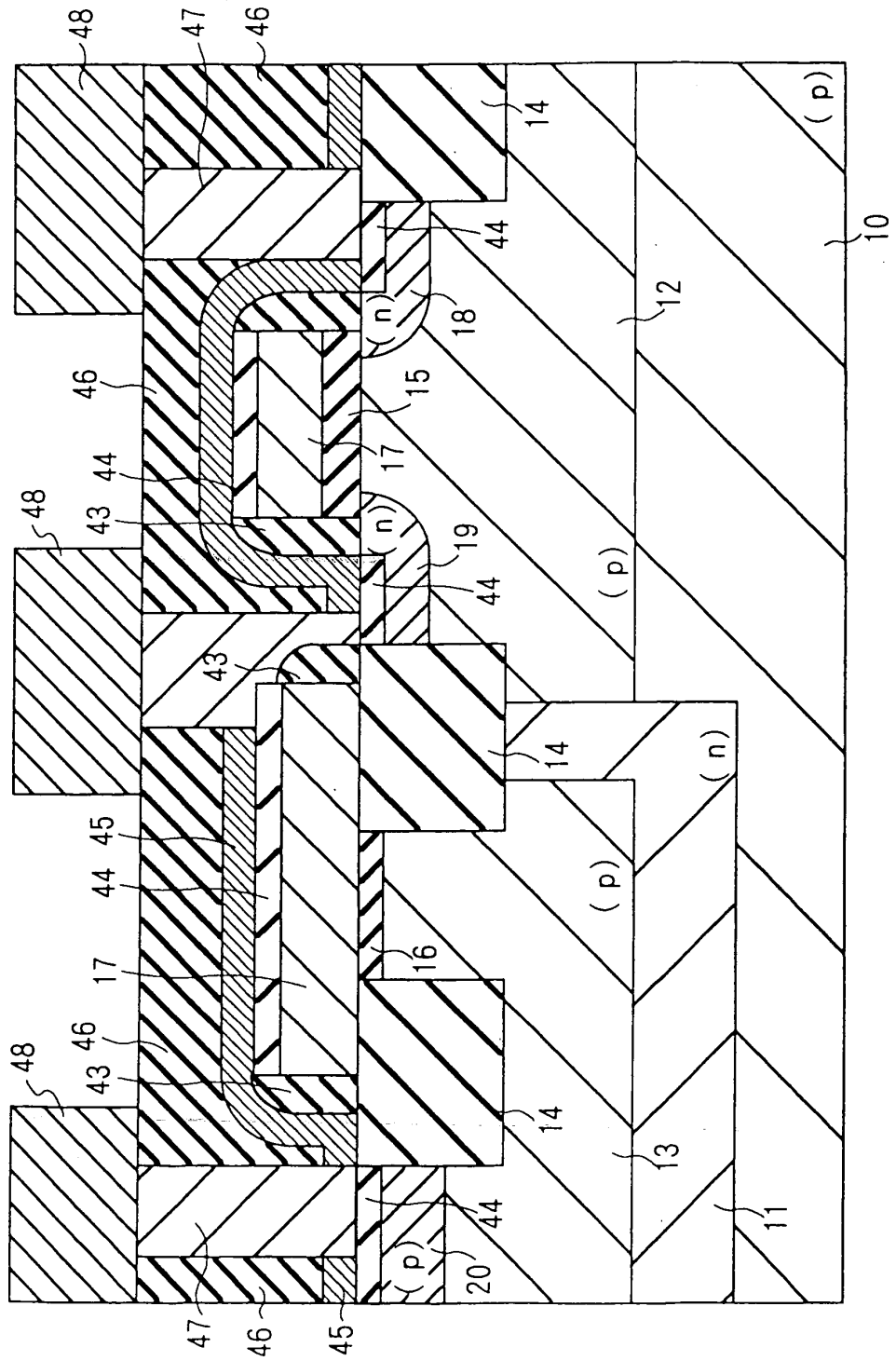


FIG. 8

FIG. 8

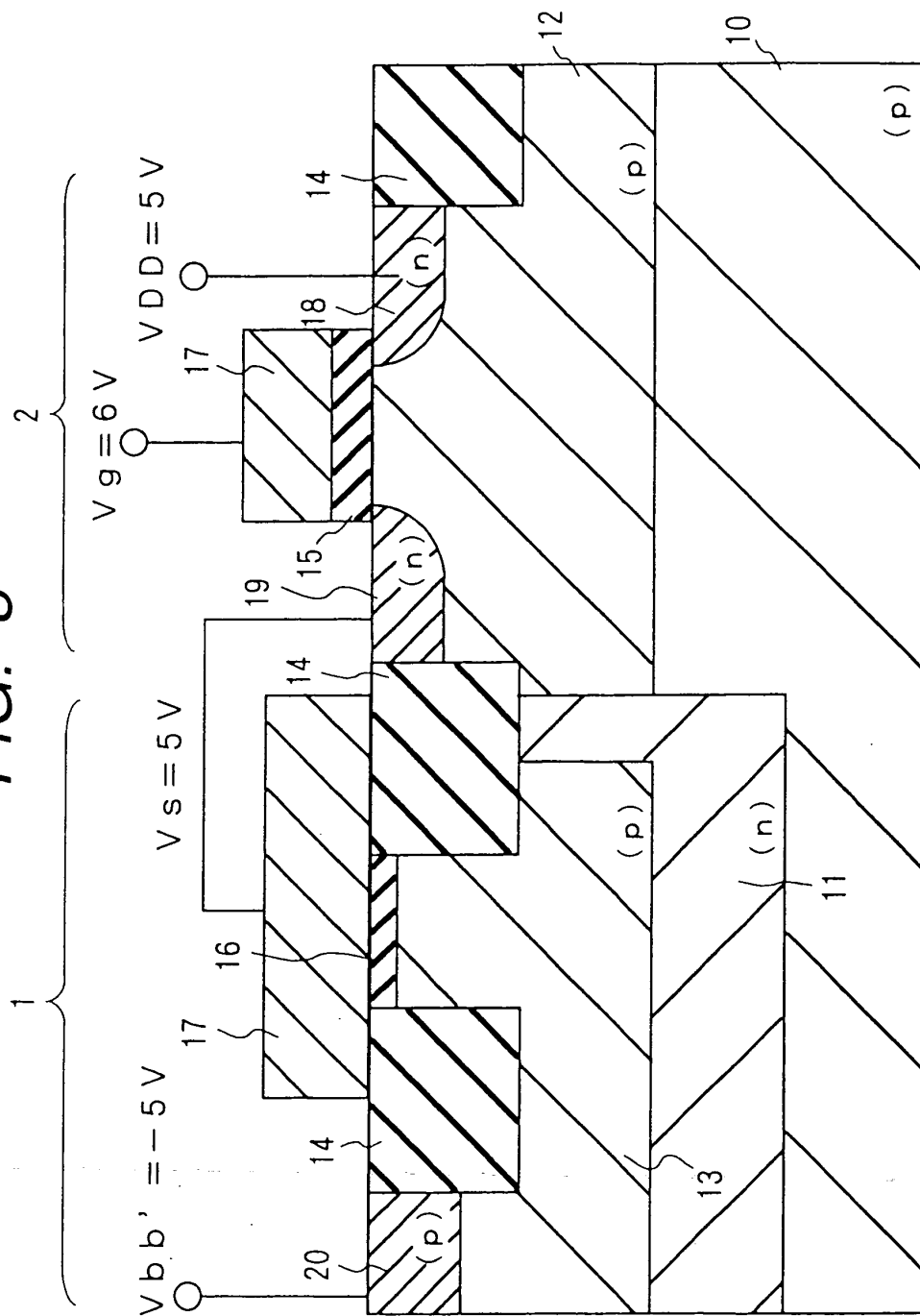


FIG. 9

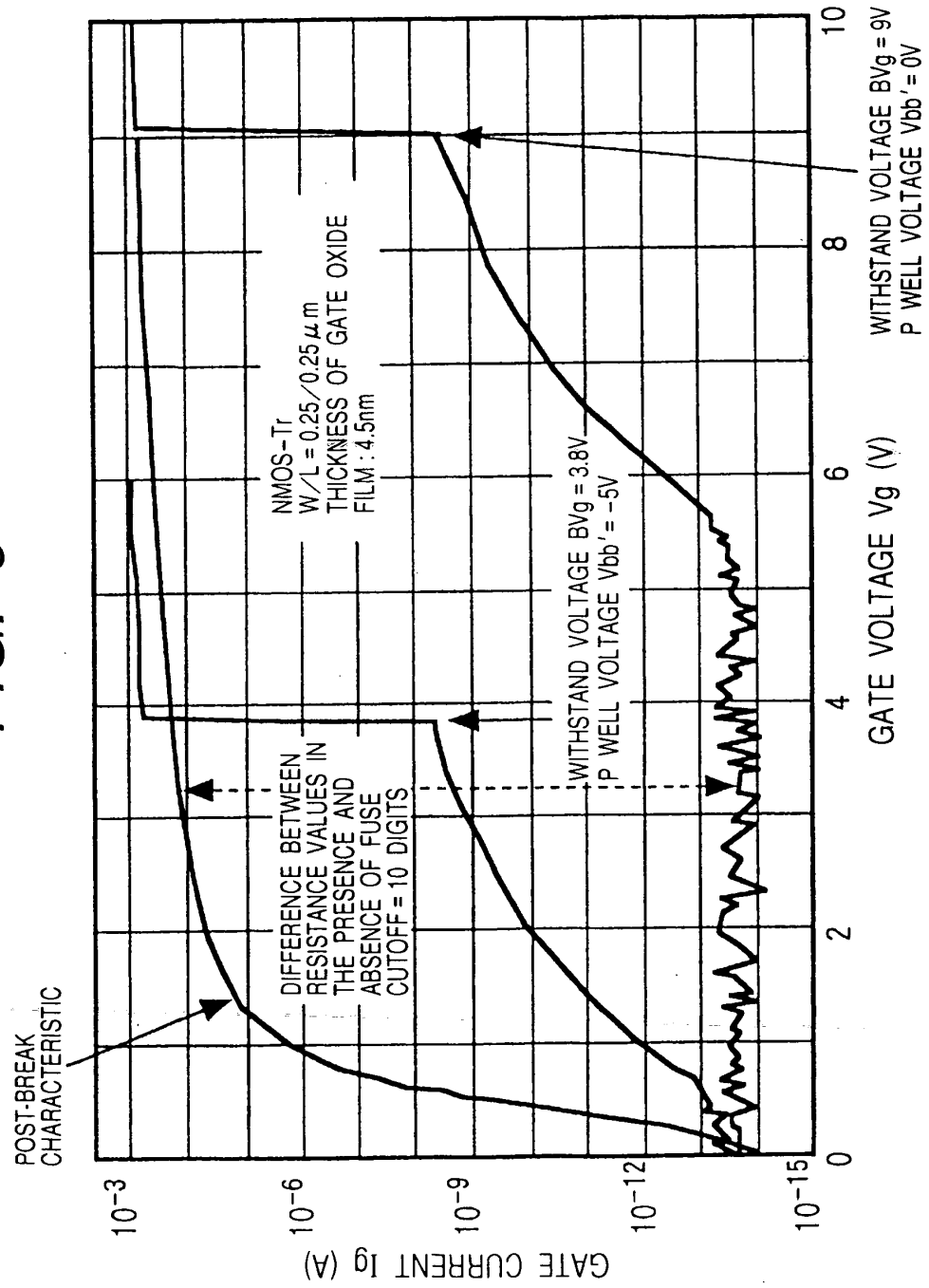


FIG. 10

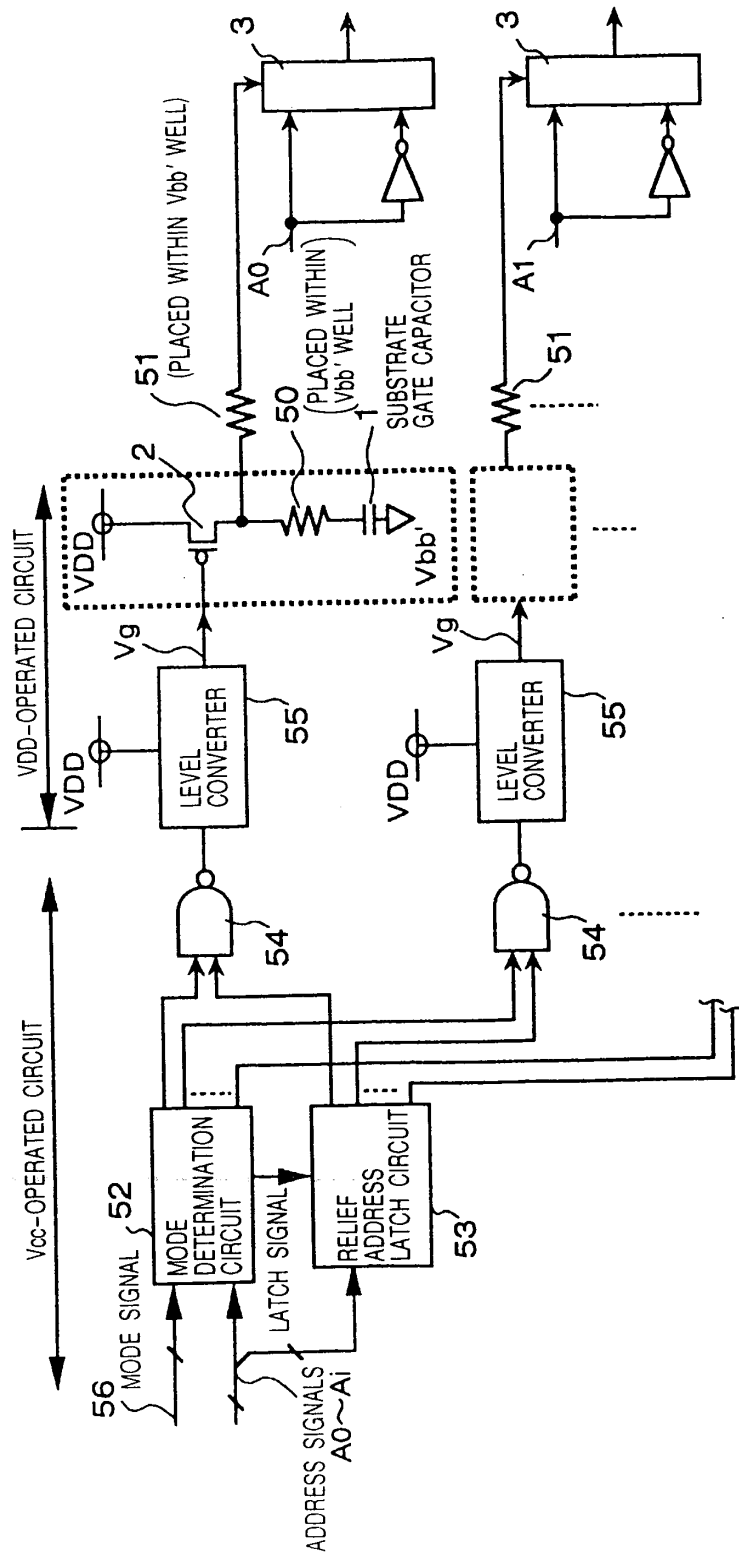
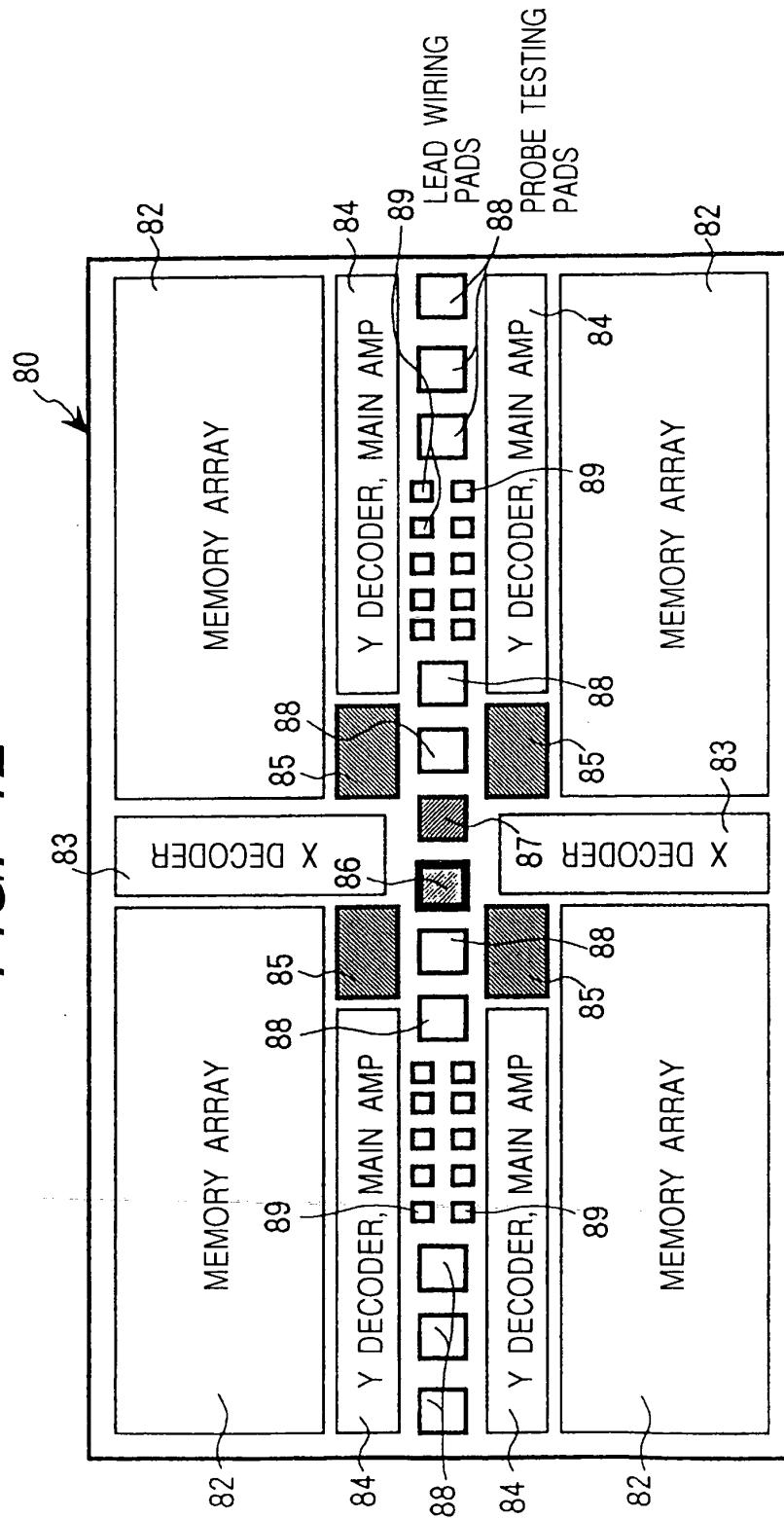


FIG. 12



85: ANTIFUSE CIRCUIT 86 : VDD PAD
 APPLY VDD UPON DIELECTRIC
 BREAKDOWN
 FIX V_{cc} AFTER DIELECTRIC
 BREAKDOWN

87 : V_{bb} ' PAD
 APPLY V_{bb} ' UPON DIELECTRIC
 BREAKDOWN
 FIX V_{ss} AFTER DIELECTRIC
 BREAKDOWN

FIG. 13

FIG. 13

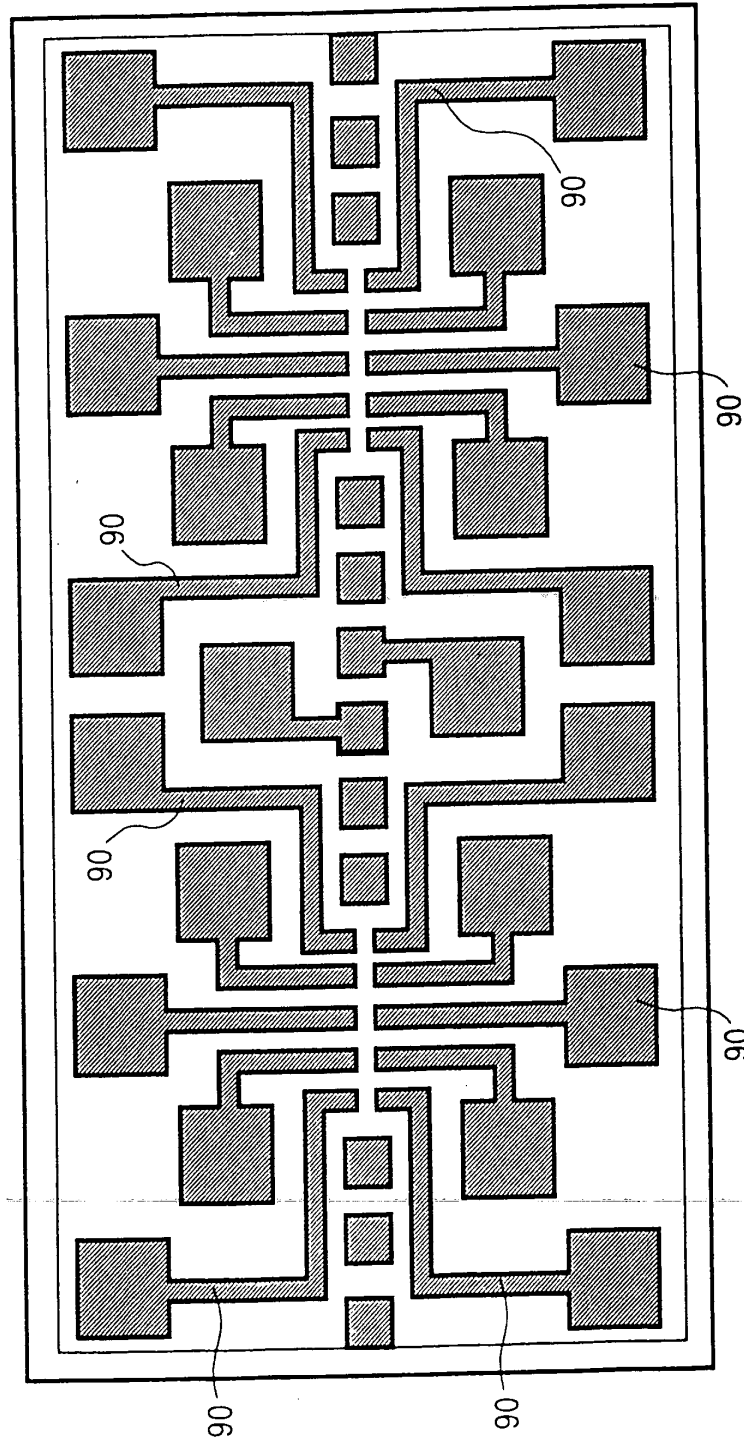


FIG. 14

FIG. 14

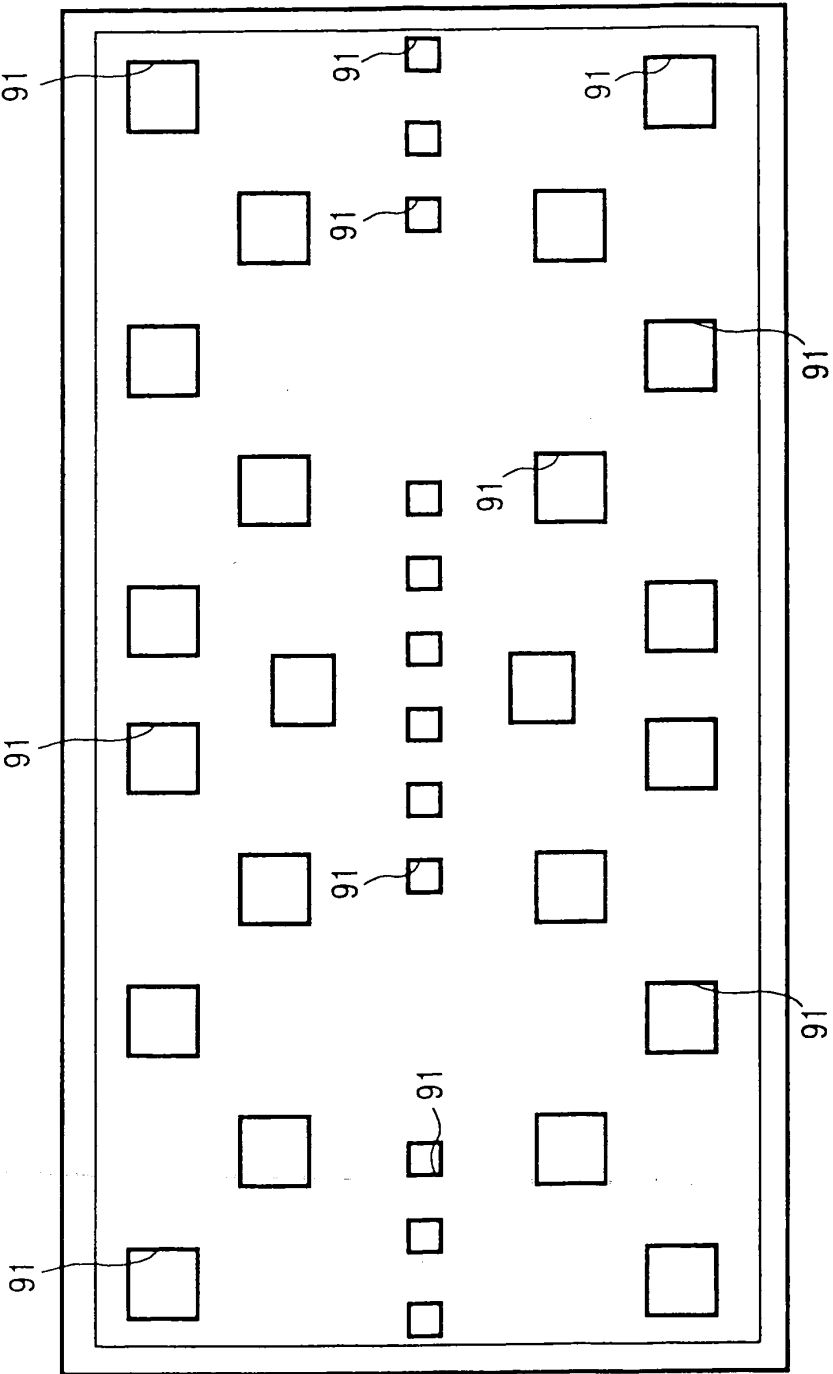


FIG. 15

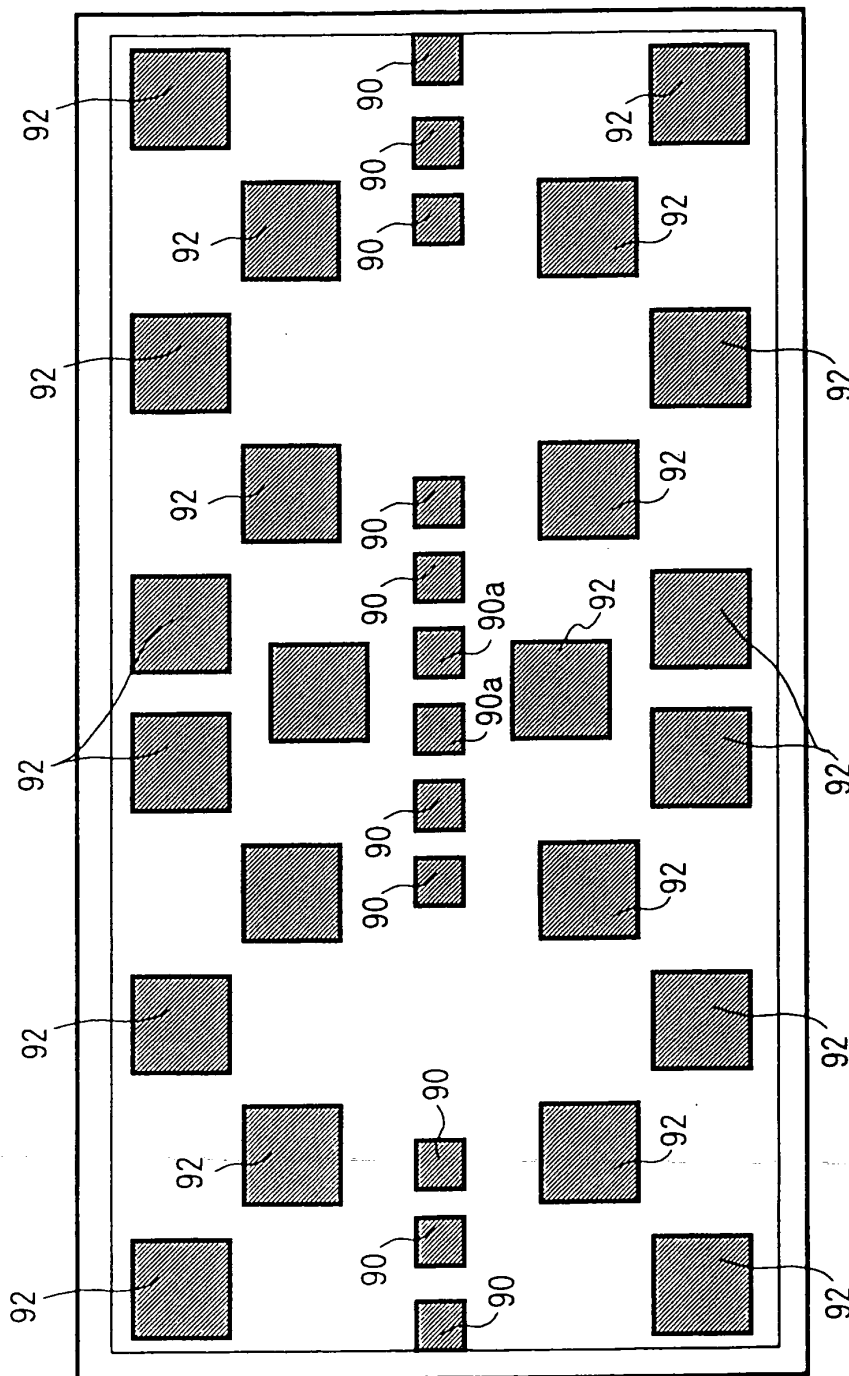


FIG. 16

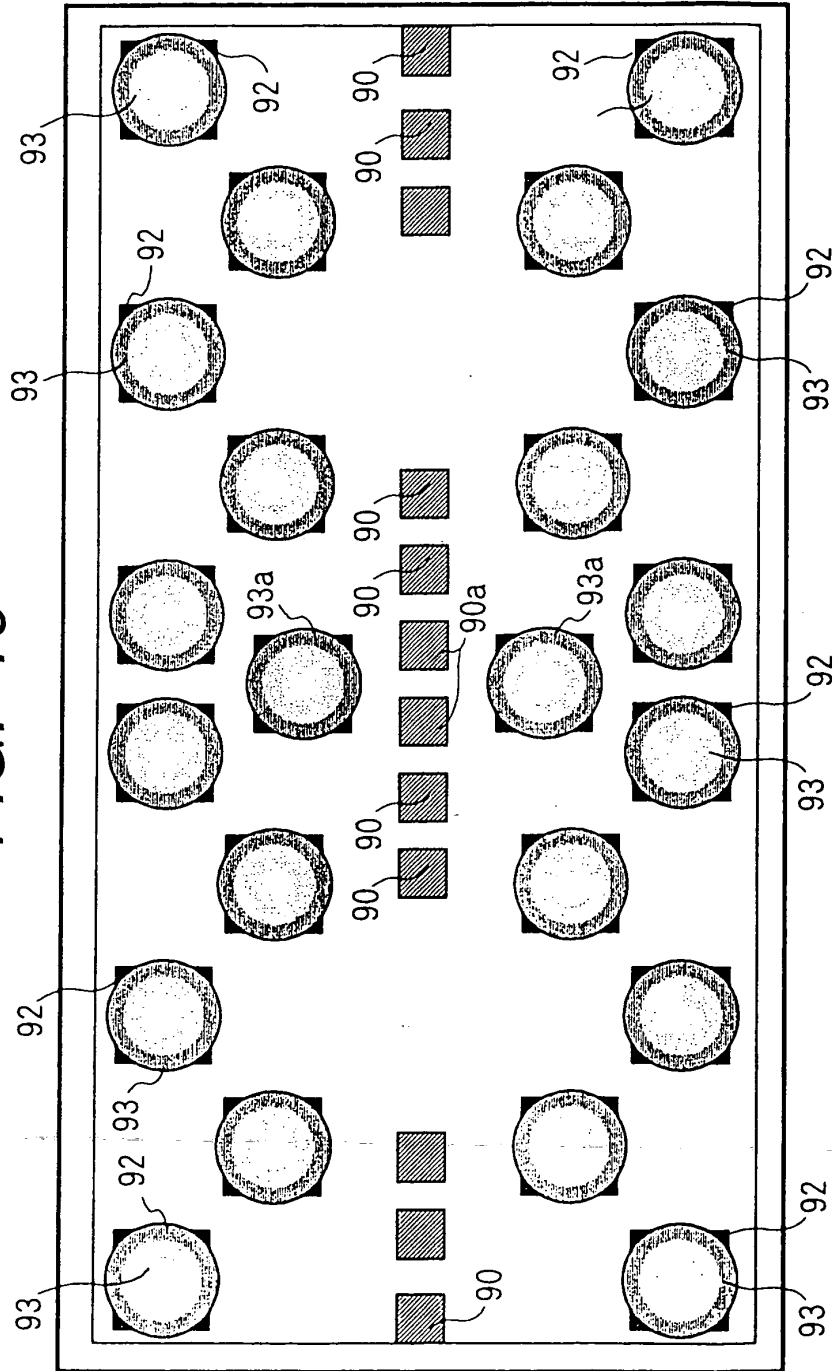


FIG. 17

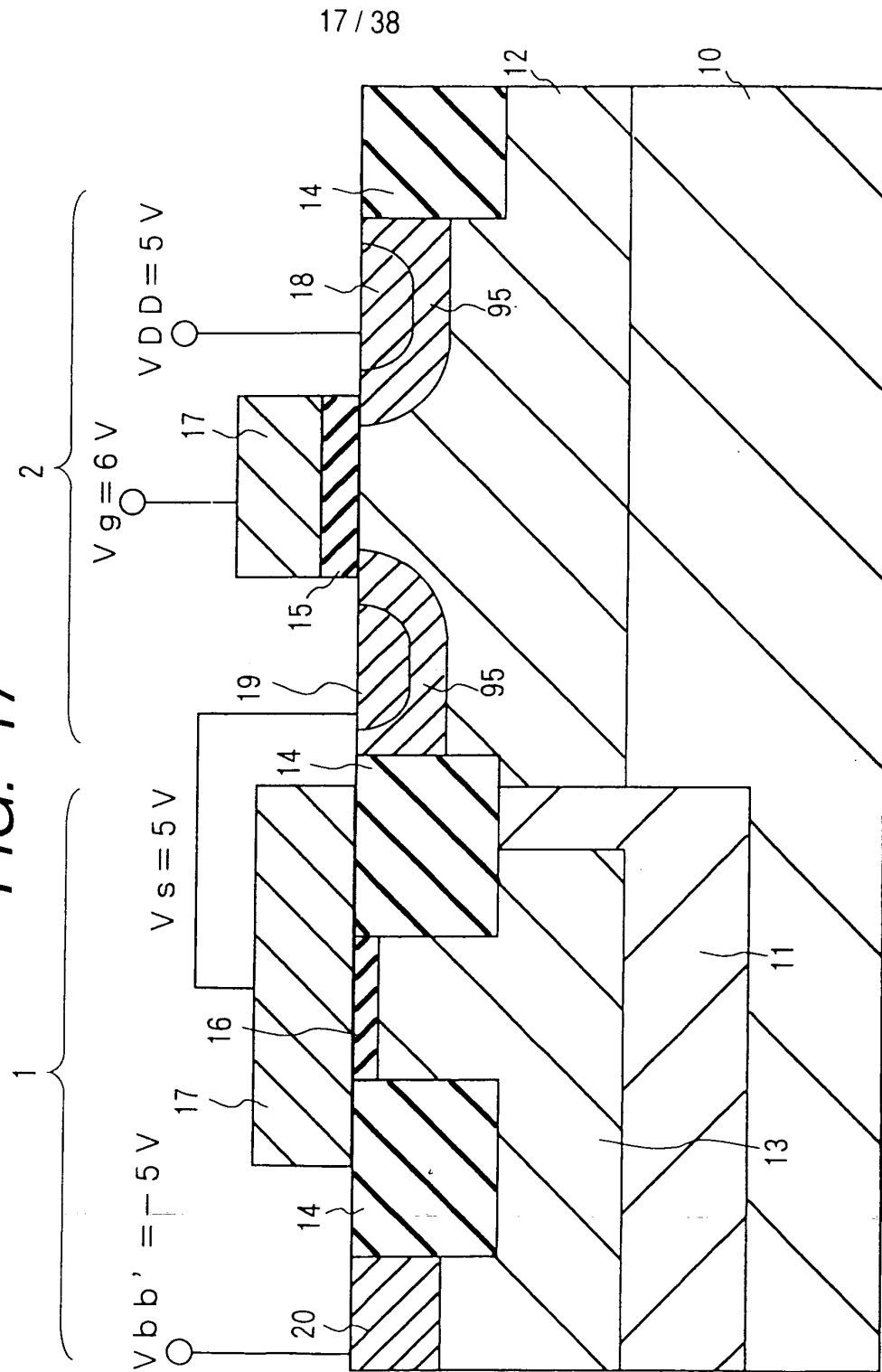


FIG. 18

FIG. 18

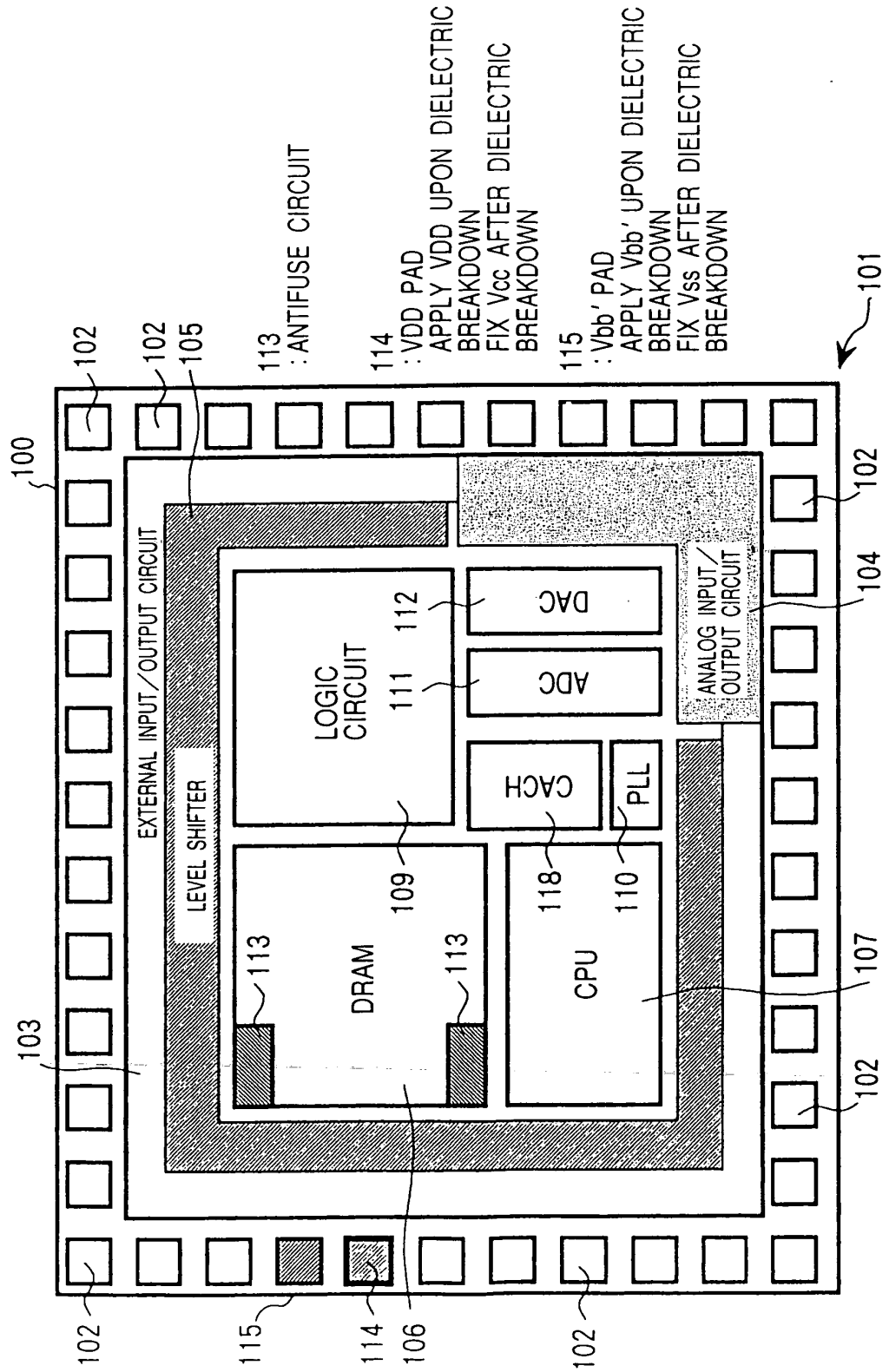


FIG. 19

FIG. 19

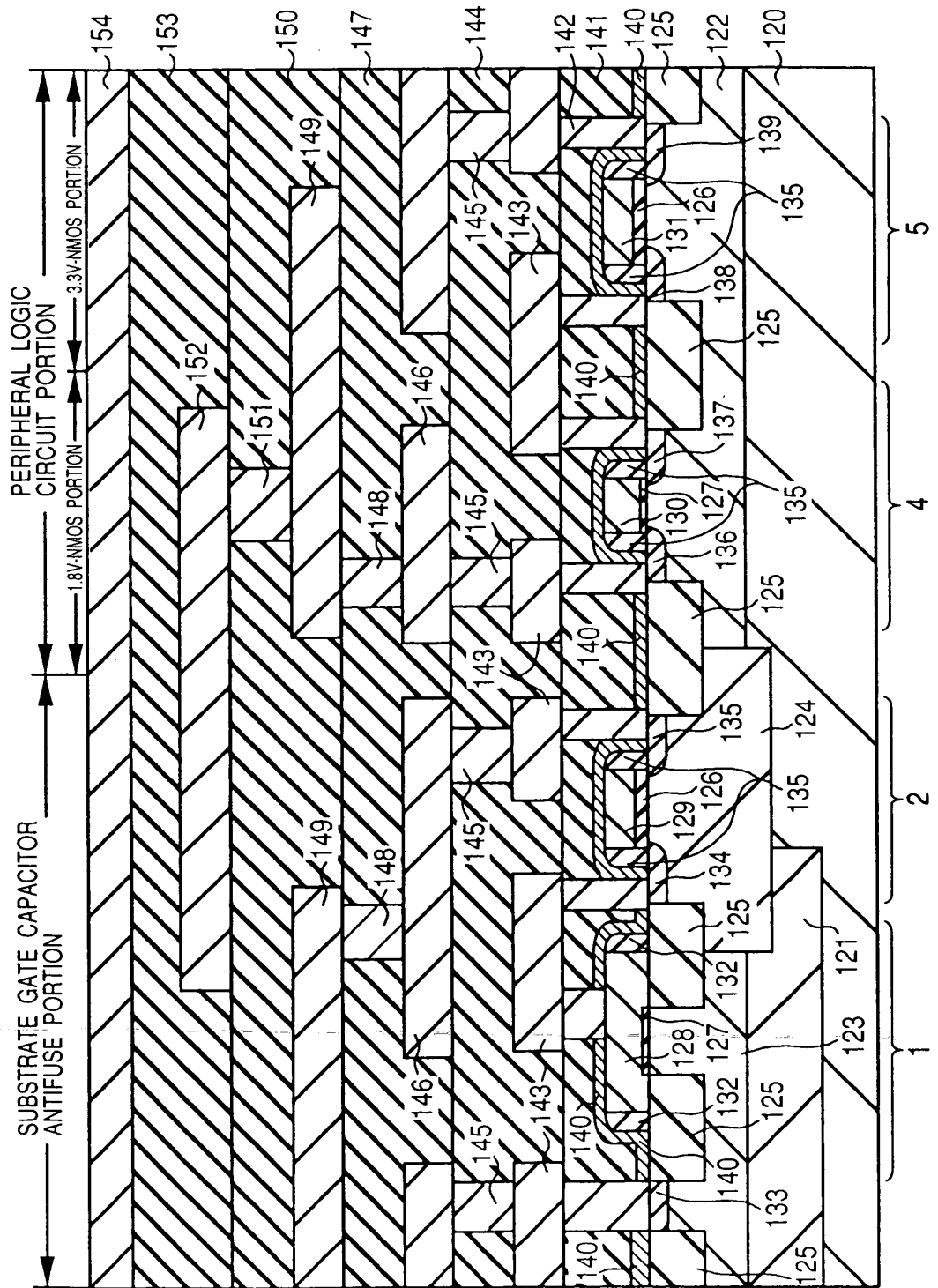


FIG. 20

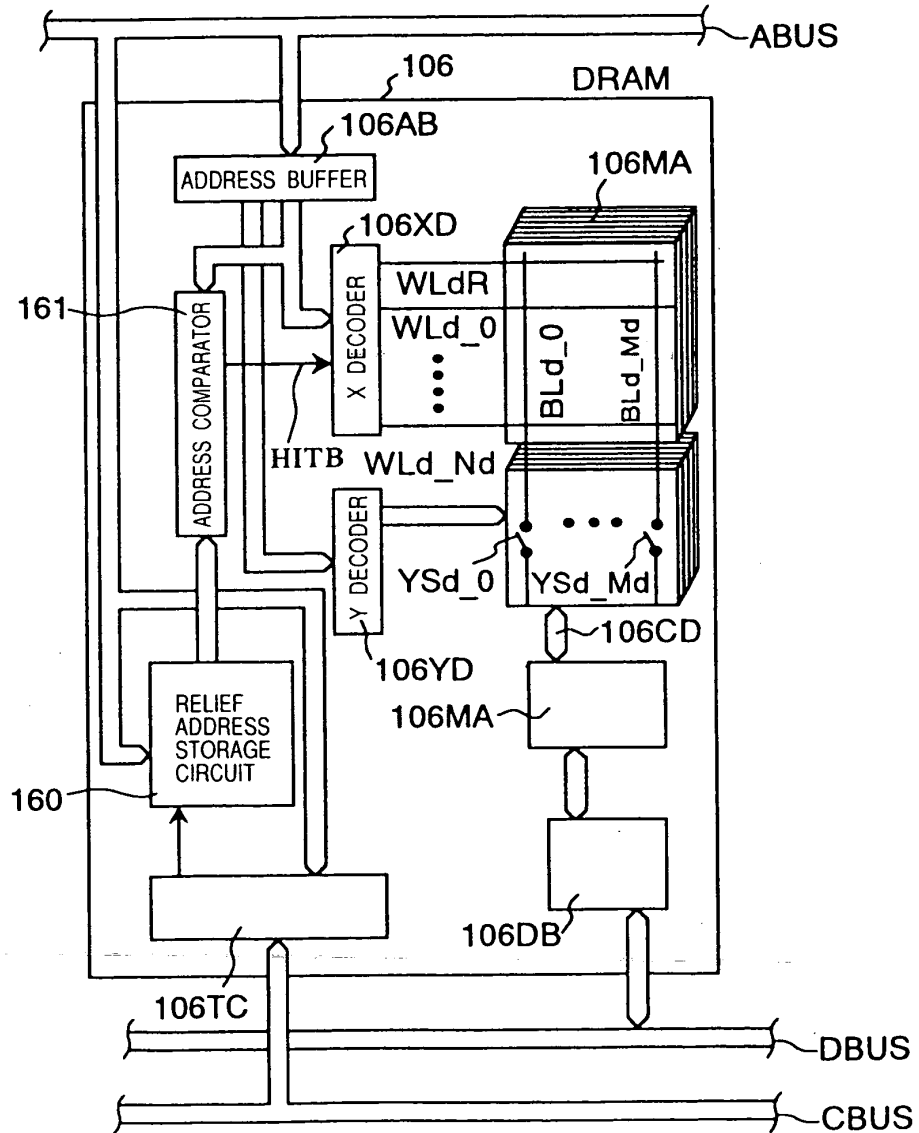


FIG. 21

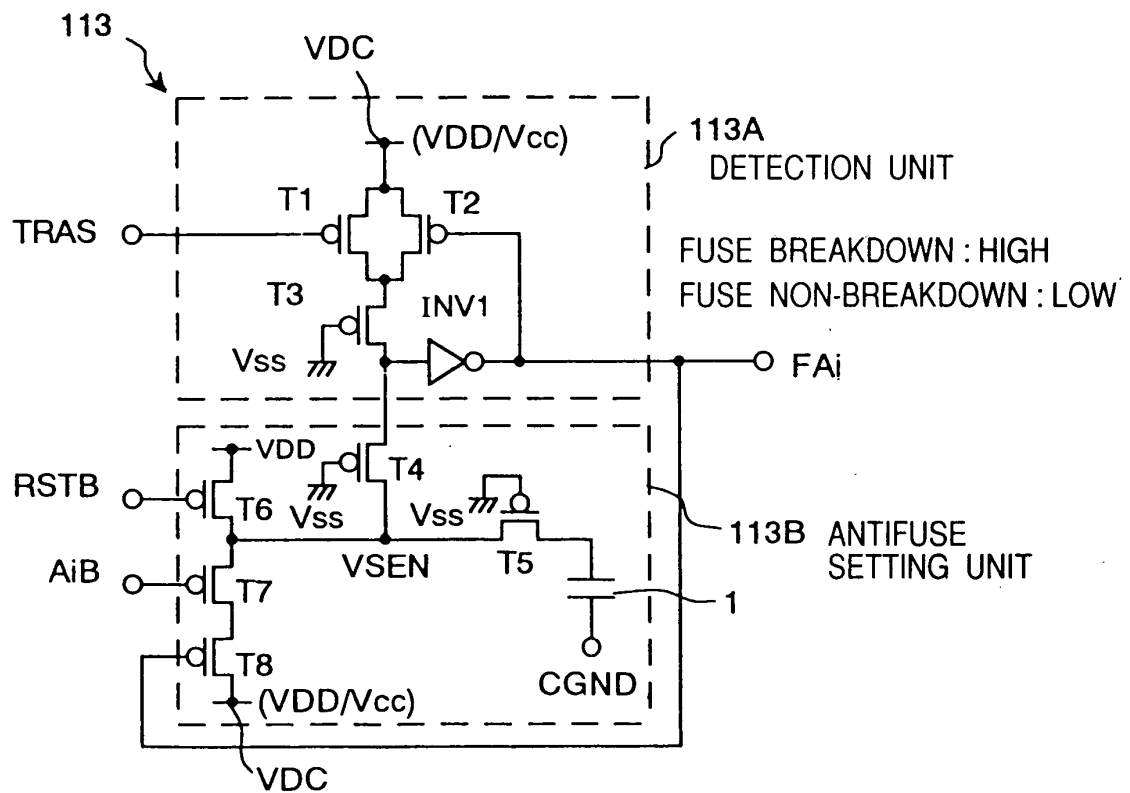


FIG. 22

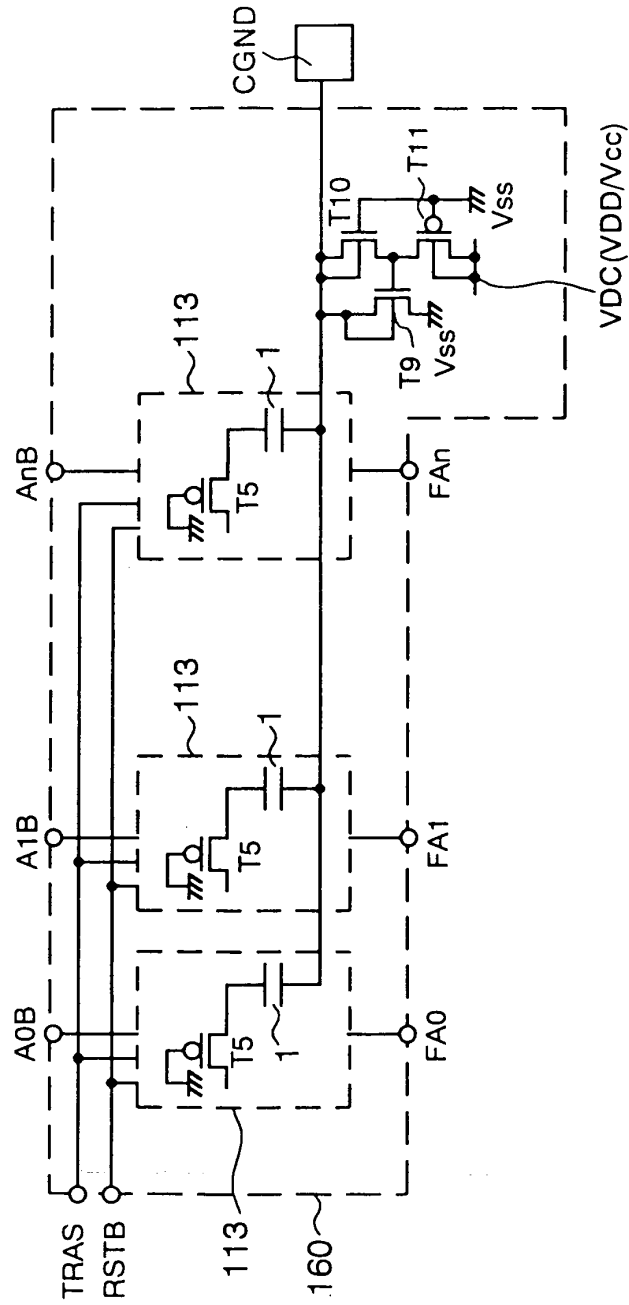
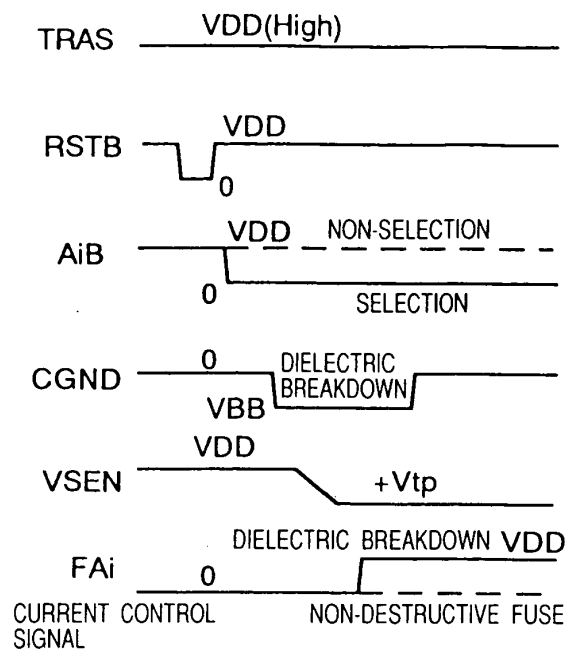


FIG. 23

(FUSE PROGRAM)

**FIG. 24**

(FUSE READOUT)

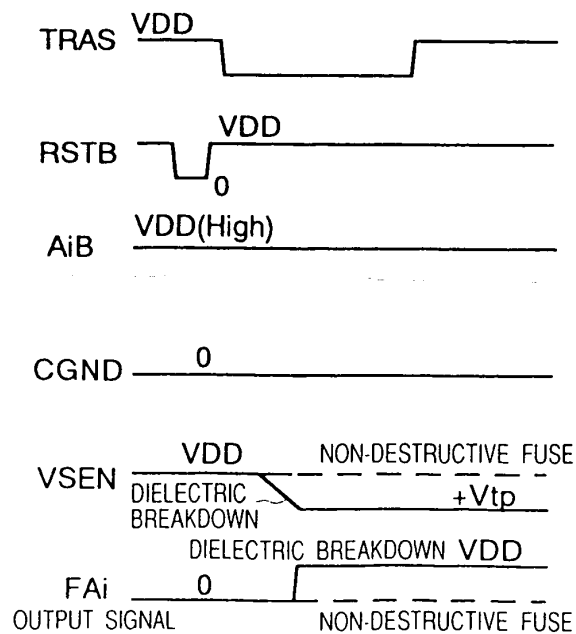


FIG. 25

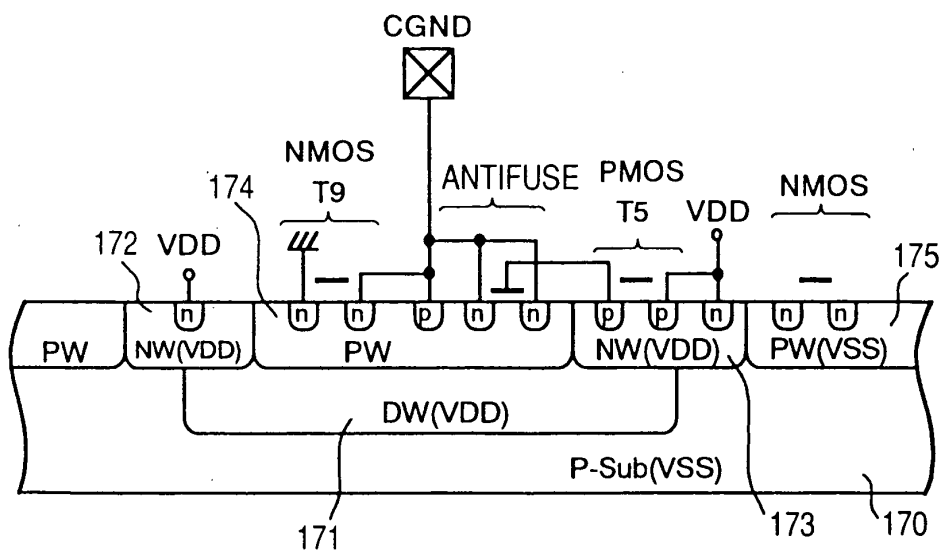


FIG. 26

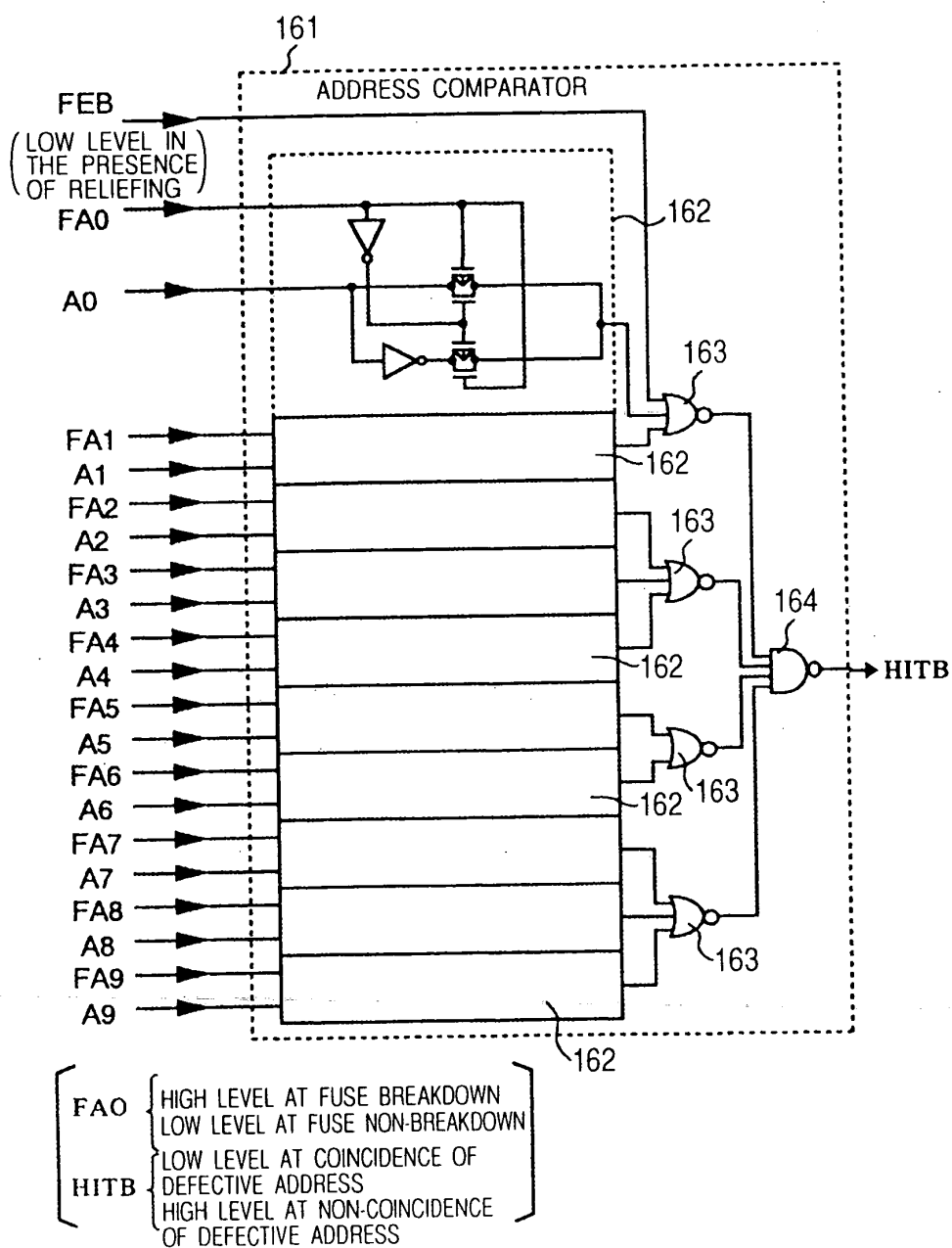


FIG. 27

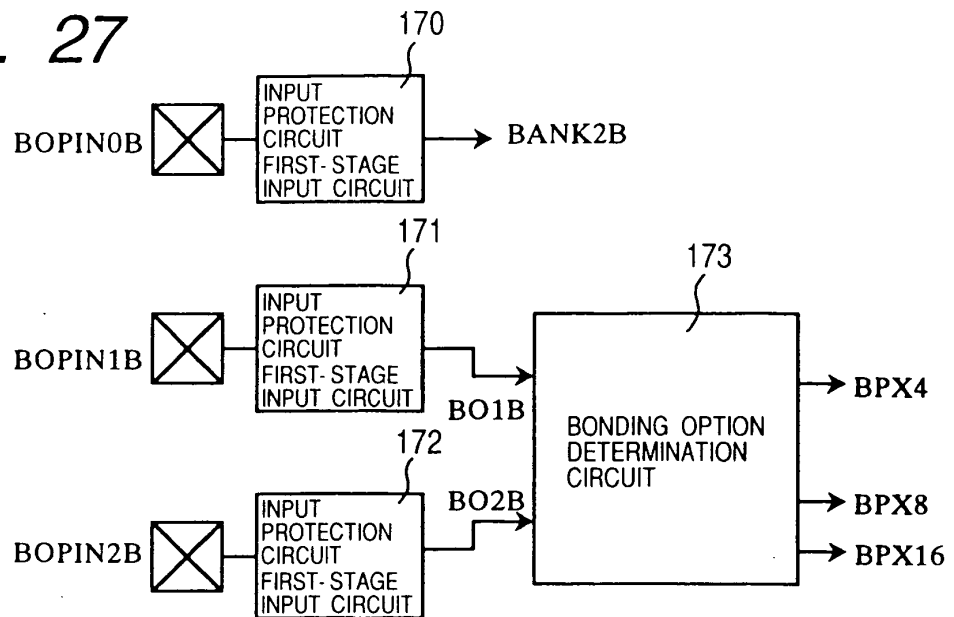


FIG. 28

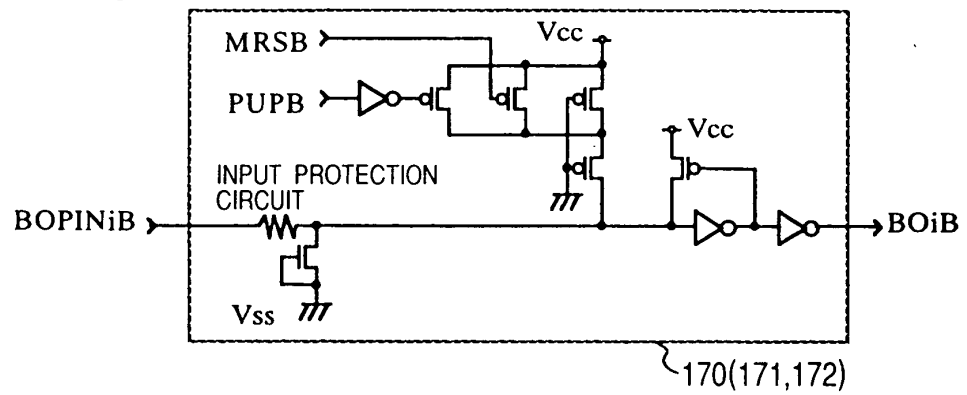


FIG. 29

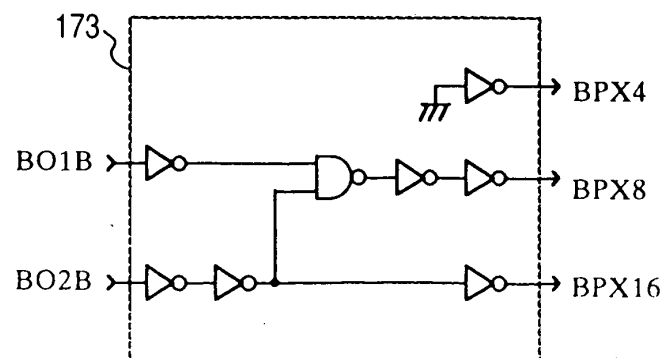
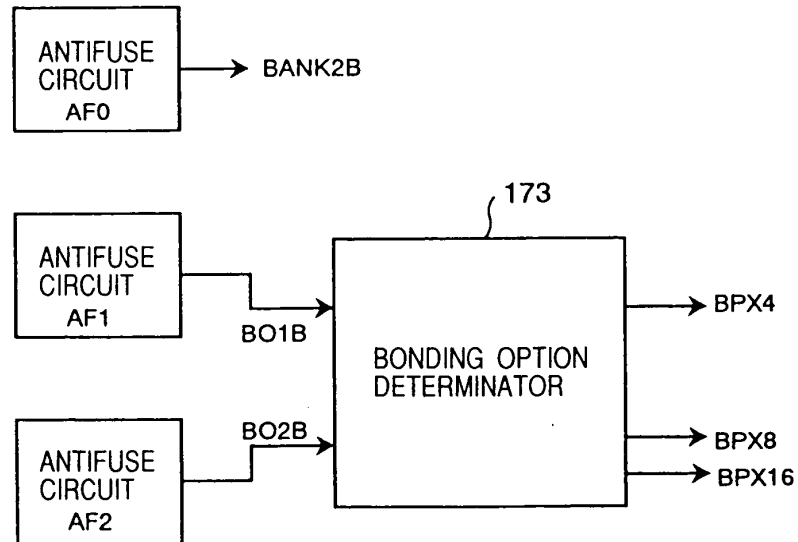


FIG. 30

LIST OF BONDING OPTION SPECIFICATIONS

SPECIFICATIONS	INPUT			OUTPUT			
	BOPIN0B	BOPIN1B	BOPIN2B	BNK2B	BPX4	BPX8	BPX16
4Bank / x4	Floating	VSS	Floating	'H'	'H'	'L'	'L'
4Bank / x8	Floating	Floating	Floating	'H'	'H'	'H'	'L'
4Bank / x16	Floating	Floating	VSS	'H'	'H'	'H'	'H'
2Bank / x4	VSS	VSS	Floating	'L'	'H'	'L'	'L'
2Bank / x8	VSS	Floating	Floating	'L'	'H'	'H'	'L'
2Bank / x16	VSS	Floating	VSS	'L'	'H'	'H'	'H'

FIG. 31**FIG. 32**

LIST OF ANTIFUSE OPTION SPECIFICATIONS

SPECIFICATIONS	STATE OF ANTIFUSE			OUTPUT			
	AF0	AF1	AF2	BNK2B	BPX4	BPX8	BPX16
4Bank / x4	BREAKDOWN	NON-BREAKDOWN	BREAKDOWN	'H'	'H'	'L'	'L'
4Bank / x8	BREAKDOWN	BREAKDOWN	BREAKDOWN	'H'	'H'	'H'	'L'
4Bank / x16	BREAKDOWN	BREAKDOWN	NON-BREAKDOWN	'H'	'H'	'H'	'H'
2Bank / x4	NON-BREAKDOWN	NON-BREAKDOWN	BREAKDOWN	'L'	'H'	'L'	'L'
2Bank / x8	NON-BREAKDOWN	BREAKDOWN	BREAKDOWN	'L'	'H'	'H'	'L'
2Bank / x16	NON-BREAKDOWN	BREAKDOWN	NON-BREAKDOWN	'L'	'H'	'H'	'H'

FIG. 33

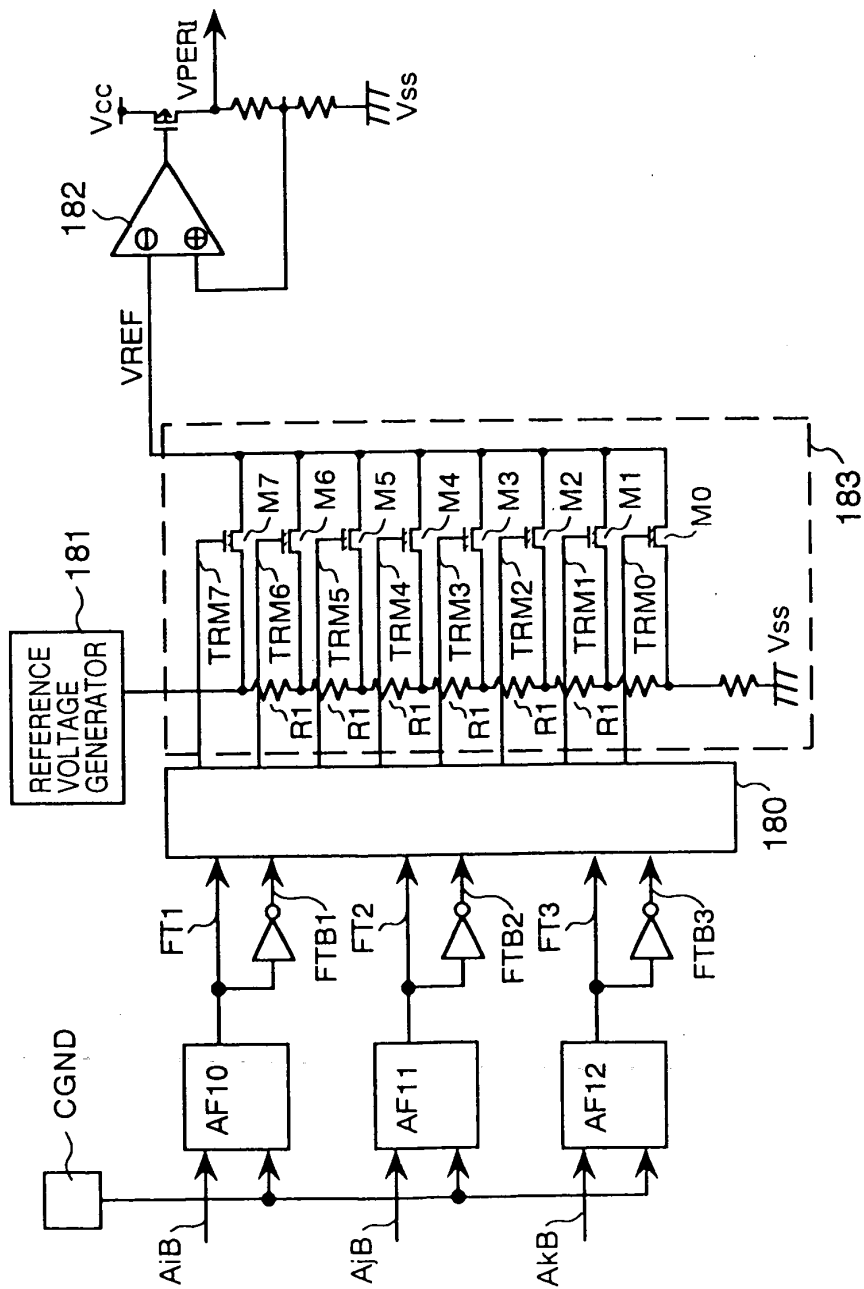


FIG. 34

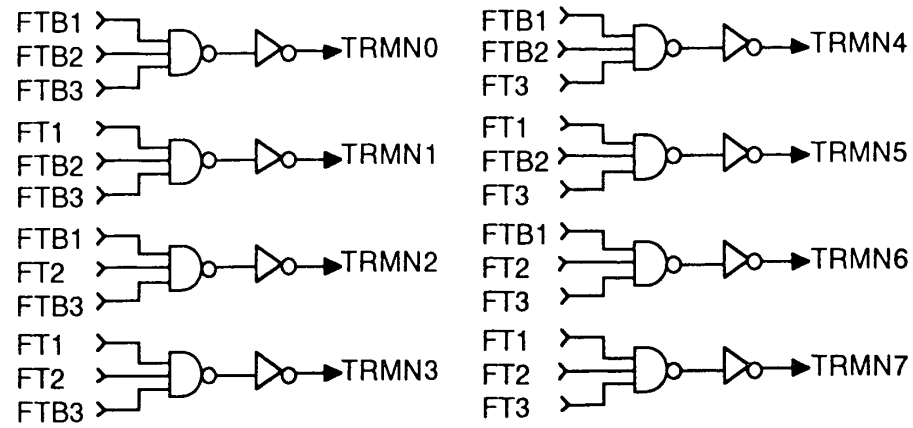


FIG. 35

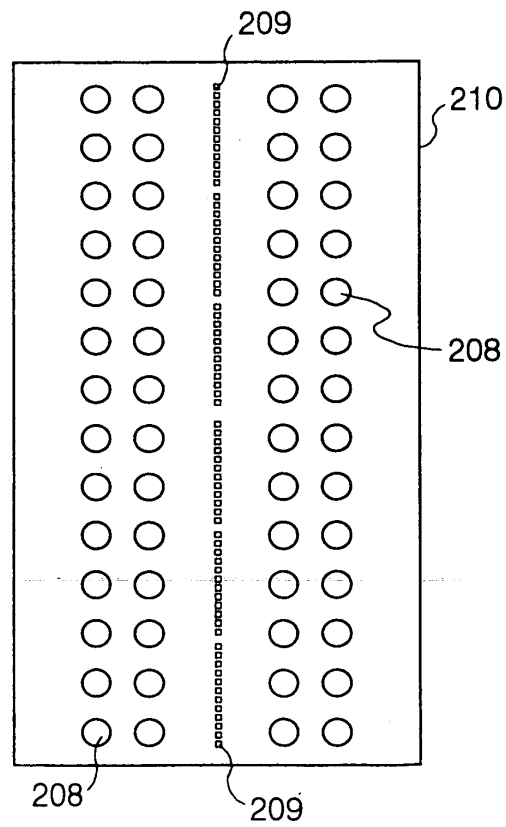


FIG. 36

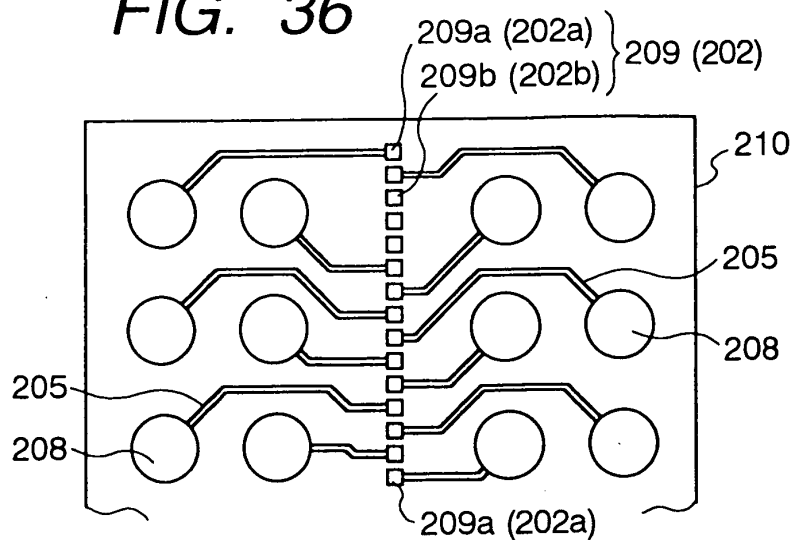


FIG. 37

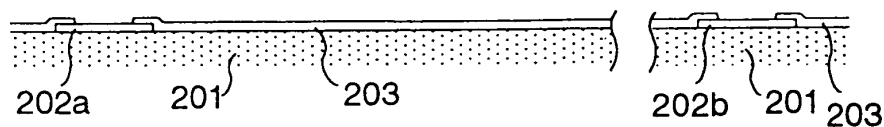


FIG. 38

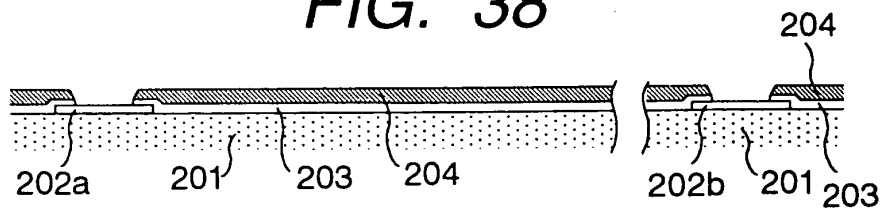


FIG. 39

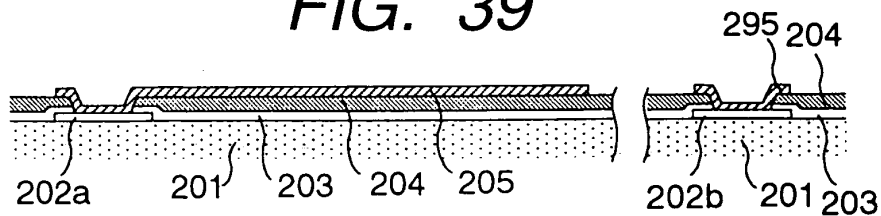


FIG. 40

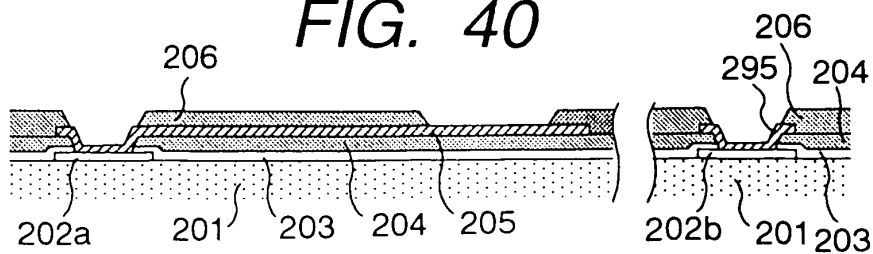


FIG. 41

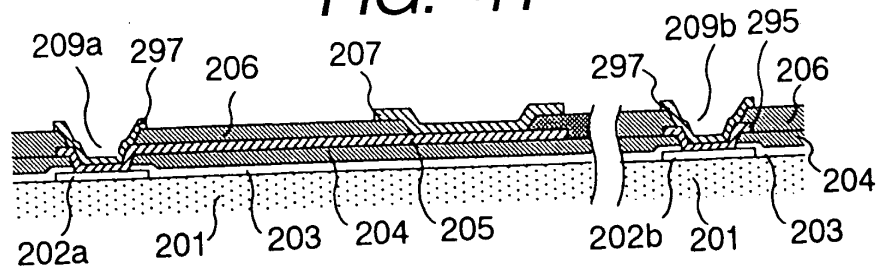


FIG. 42

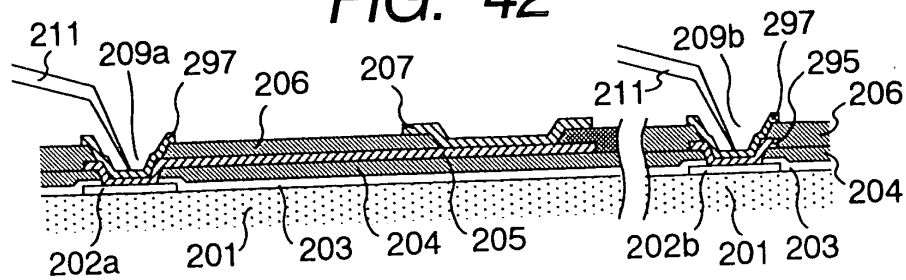


FIG. 43

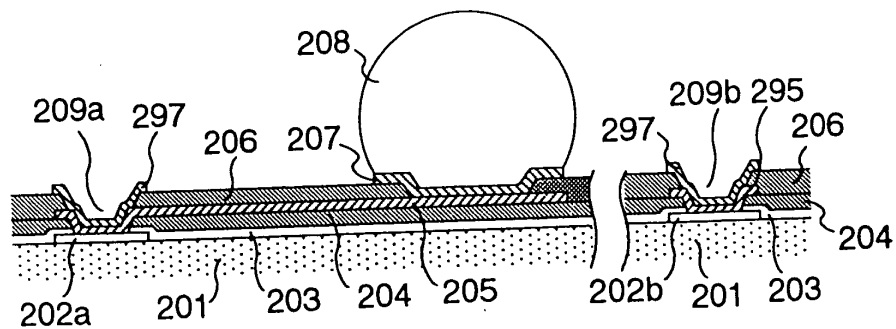


FIG. 44

CONTENTS	NUMBER OF BONDING PADS	NUMBER OF PACKAGE EXTERNAL TERMINALS
SIGNAL INPUT/ OUTPUT	39	39
POWER	24	14
FUNCTION SELECTION	3	0
PROBE TEST	6	0
NON-CONNECTION	—	1
TOTAL	72	54

FIG. 45

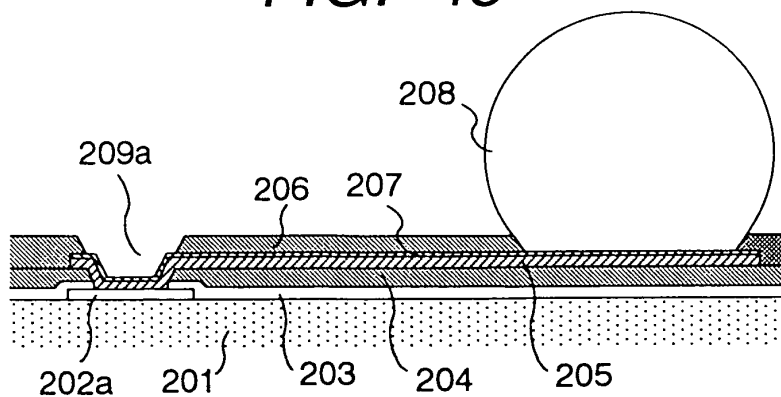


FIG. 46

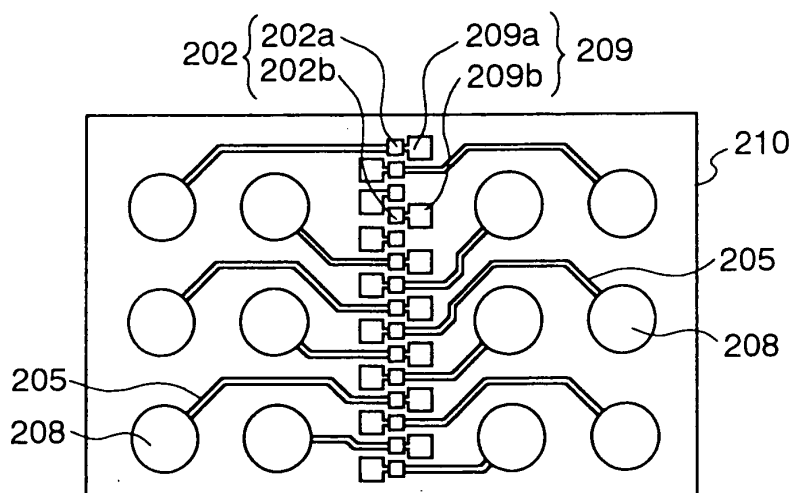


FIG. 47

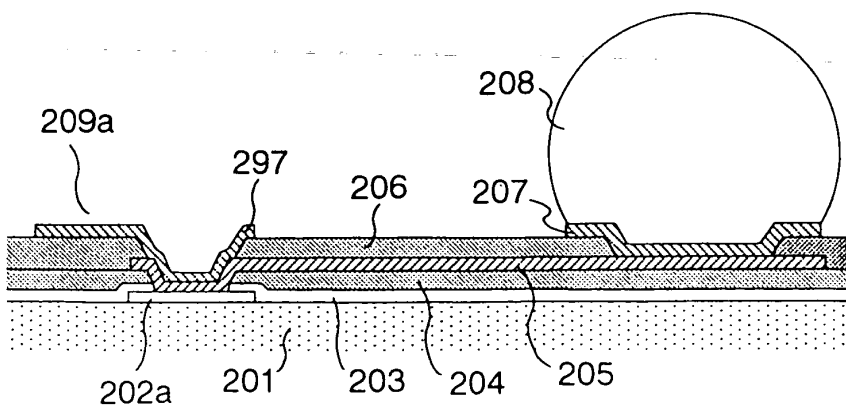


FIG. 51

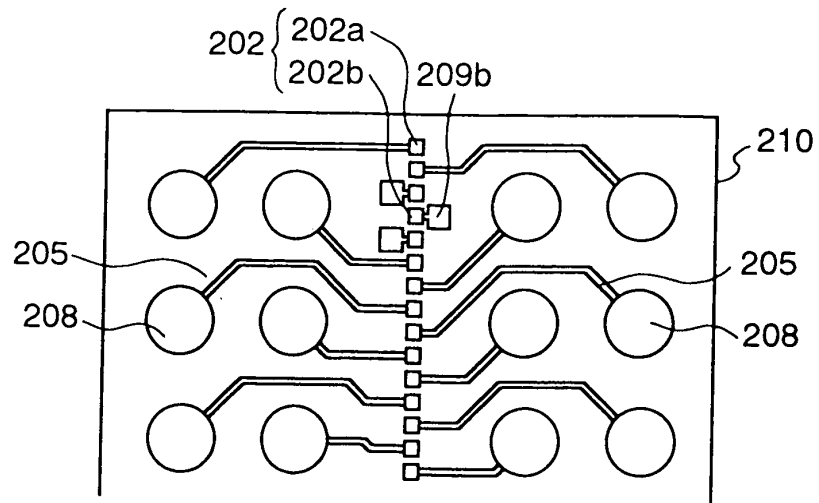


FIG. 52

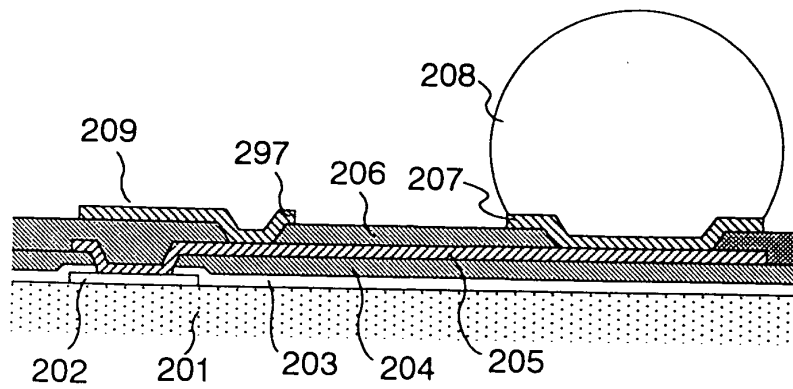


FIG. 53

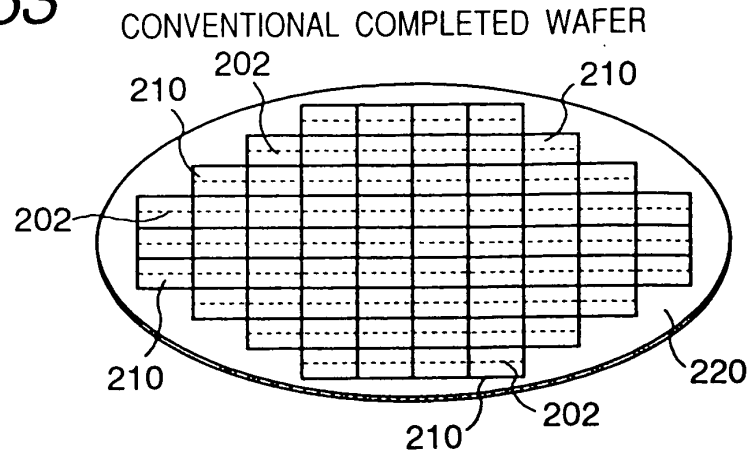


FIG. 54

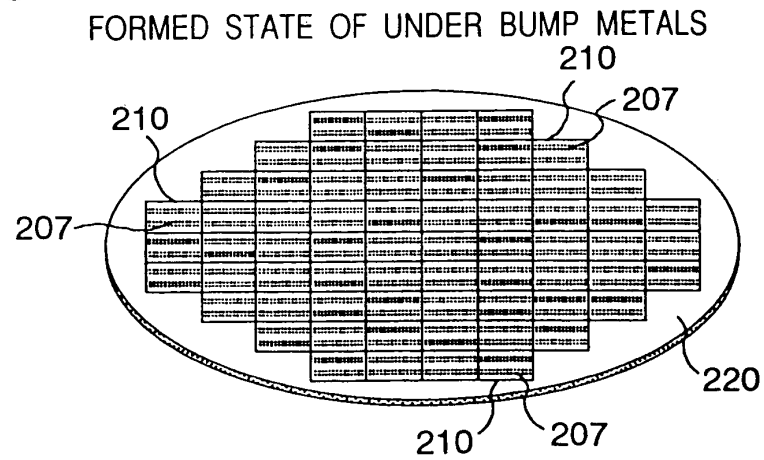


FIG. 55

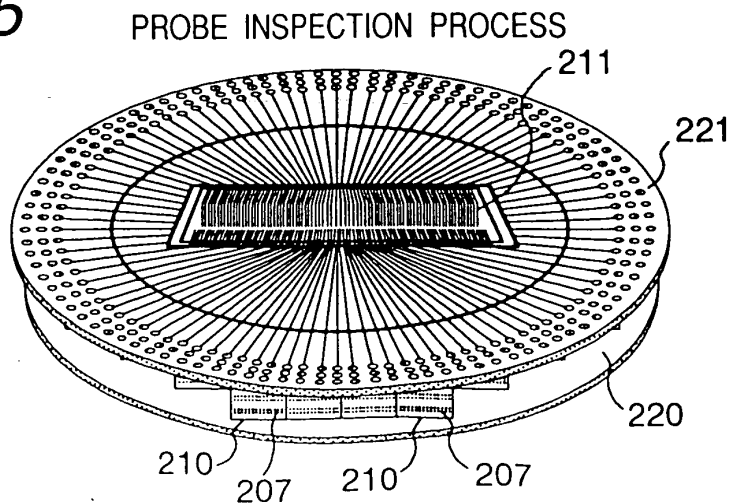
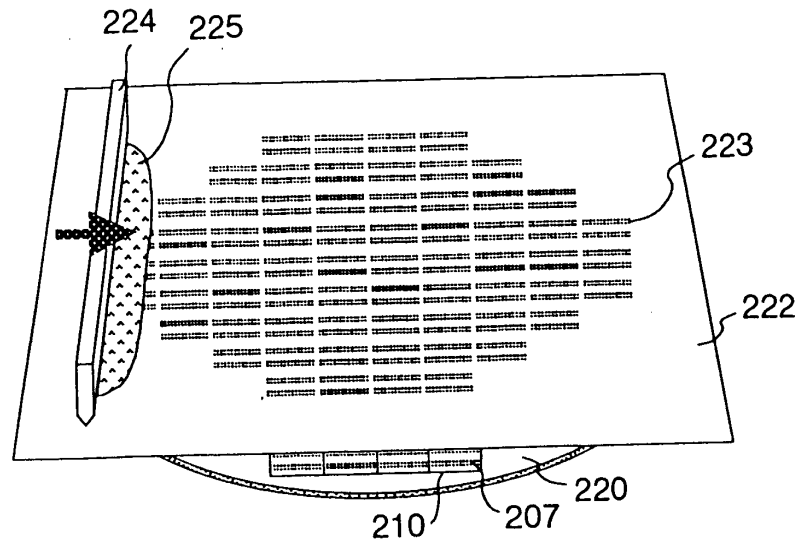


FIG. 56**SOLDER BUMP FORMING PROCESS**

↓ CROSS-SECTION

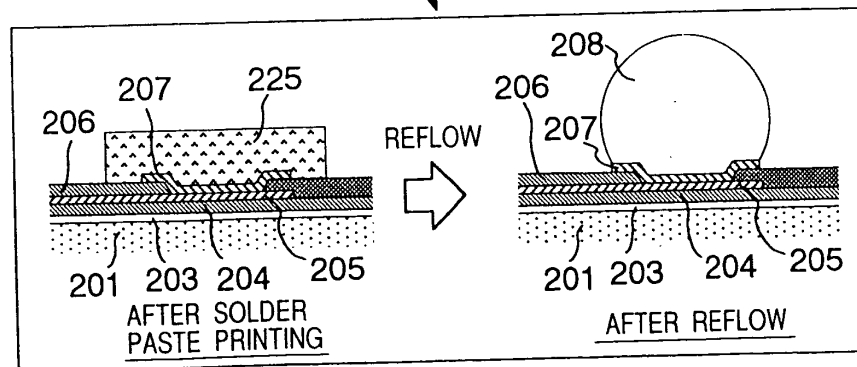
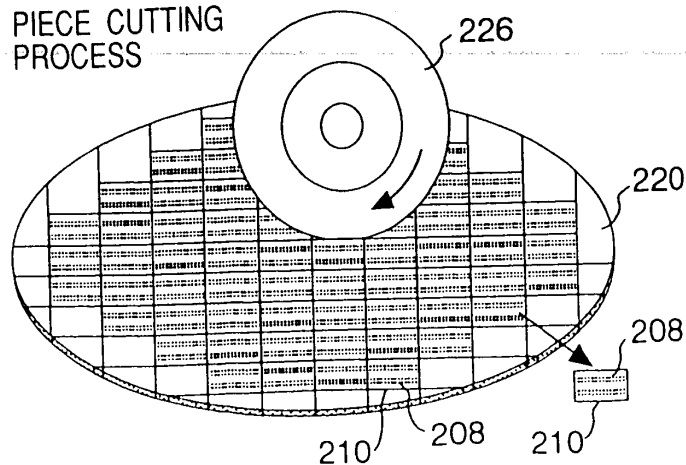
**FIG. 57****PIECE CUTTING
PROCESS**

FIG. 58

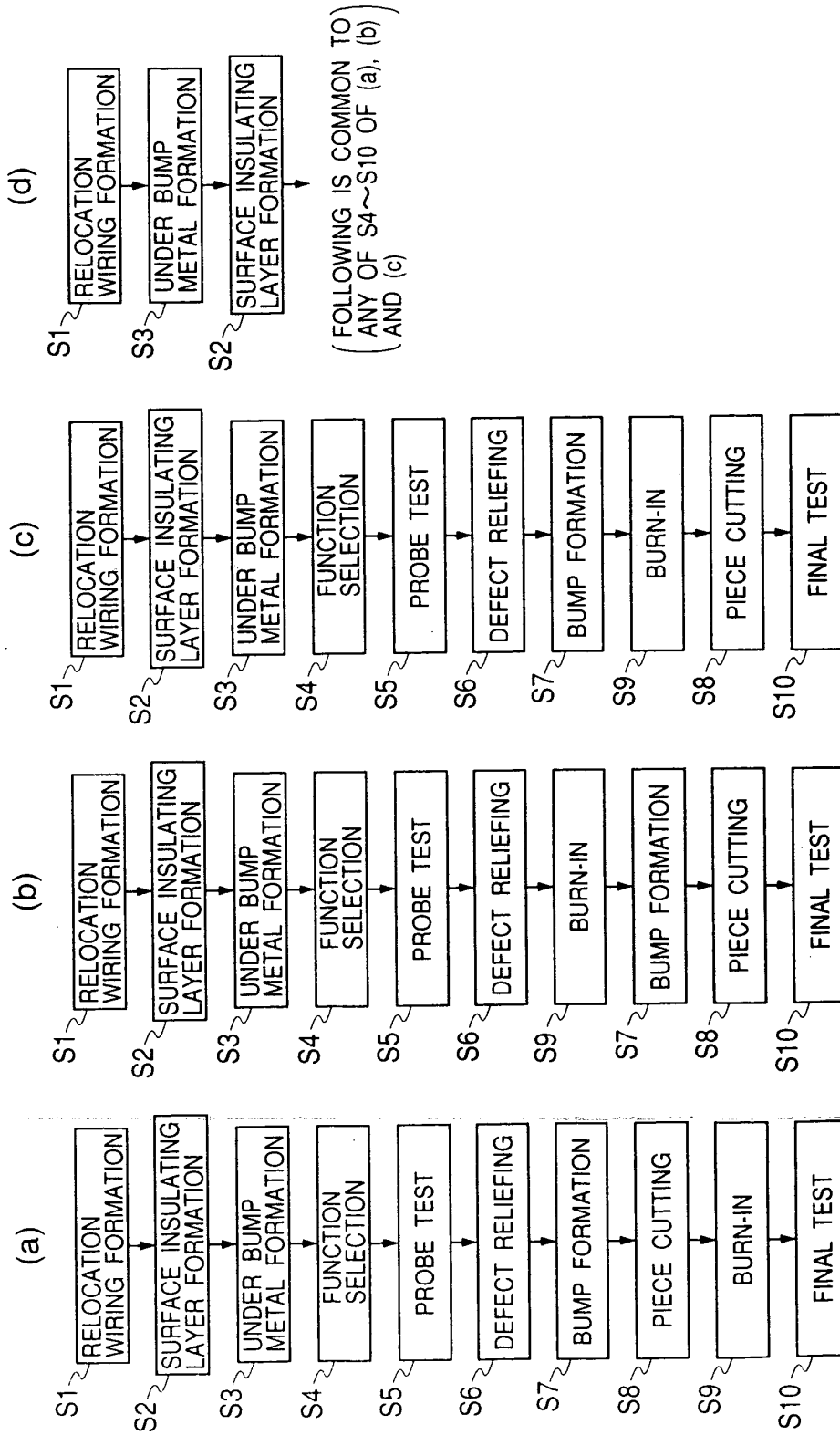


FIG. 59

PROBE IN RESPECTIVE TESTING PROCESSES,
CONTACT POINTS OF SOCKET OR THE LIKE

CONTENTS OF TERMINAL		DEDICATED FOR PROBE TEST			SUPPLY OF POWER AND INPUT/OUTPUT OF SIGNAL			CORRE- SPONDING PROCESS FLOW
CLASSIFI- CATION OF TEST		PROBE TEST	BURN-IN	FINAL TEST	PROBE TEST	BURN-IN	FINAL TEST	
MODE	1	TESTING PAD	NONUSE	NONUSE	TESTING PAD	BUMP	BUMP	a, c
	2	TESTING PAD	NONUSE	NONUSE	UNDER BUMP METAL	BUMP	BUMP	a, c
	3	TESTING PAD	NONUSE	NONUSE	TESTING PAD	TESTING PAD	BUMP	a, b, c
	4	TESTING PAD	NONUSE	NONUSE	UNDER BUMP METAL	UNDER BUMP METAL	BUMP	b

FIG. 59